Governance of Public-Private Partnerships: A Case Study of the Kurdistan Region of Iraq's Electricity Sector

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Abstract

This thesis is focused on the most salient area within the public private partnerships (PPPs) literature, namely, the concern about the attainment of the public interest. Accordingly, it addresses the gap identified in the PPP research field with regards to assessing the governance of PPPs from a broader stakeholder perspective and investigating the question of how the public interest could be served. The fundamental ideas of the Strategic Choice Framework (SCF) are adopted for this study as a means to explore democratic governance and to examine the performance of the market-based reform of the important strategic sector of electricity, and how PPP projects might be in the public interest. The thesis enriches our understanding of PPPs through a unique case study investigation of a developing economy, the Kurdistan Region of Iraq (KRI).

In evaluating PPP project performance, the study incorporates the concept of 'practice of contracting' to the SCF to assess dynamic economic efficiency. The study shows that the choice of adopting PPP projects to reform the electricity sector has not been based upon the diverse and democratically chosen wider public objectives. The KRI's electricity sector case shows that the wider stakeholder objectives of developing the electricity sector through PPPs should be incorporated in order to attain outcomes that are in the public interest. The research also explores the governance structure of PPPs and the electricity sector as a whole to identify the governance issues and their implications for wider stakeholder interests. The study suggests public participation in PPP governance and the design of an effective process to engage stakeholders so as to have 'voice' in the strategic decision-making and development processes. The study incorporates the Senecah's (2004) 'Trinity of Voice' concept in order to examine the ways in which stakeholder engagement in the strategic decision-making process can be effective.

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List of Abbreviations

BOO	Build Own Operate
COM	Council of Ministers
DGFPP	Dohuk Gas-Fired Power Plant
EGFP	Erbil Gas-Fired Power plant
EPC	Engineering, Procurement, and Construction service
FGB	Focus Group of Bazyan
FGSL	Focus Group of Sulaimaniyah
FGCH	Focus Group of Chamchamal
FGER	Focus Group of Erbil
FGSH	Focus Group of Shamamk
GW	Gigawatt
GE	General Electric
GDP	Gross Domestic Product
IFC	International Finance Corporation
IPP	Independent Power Producer
ISIL	Islamic State of Iraq and Syria
KRI	Kurdistan Region of Iraq
KRDCC	Kurdistan Region Dispatch and Control Centre
KRG	Kurdistan Regional Government
Kw/h	Kilowatt/Hour
MGH	Mass Global Holding
MOE	Ministry of Electricity
MOIT	Ministry of Industry and Trade
MONR	Ministry of Natural Resources
MW	Megawatt
NHS	National Health Service
OEM	Operation and Engineering Management
PPA	Power Purchase Agreement
PSG	Public Sector Group
PCG	Private Companies Group
RSG	Representative Stakeholder Group
SCF	Strategic Choice Framework
SGFP	Sulaimaniyah Gas-Fired Plant

TOV	Trinity of Voice
VFM	Value for Money
UN	United Nations

Chapter One
Introduction

1.1 Research Context

A reliable and affordable electricity supply is important for the socio-economic development of any society. Electricity is used to provide energy for heating, cooling, lighting, cooking, and electronic activity. It is also relied on to stimulate industries and operate many manufacturing activities by businesses. However, an expensive and poor quality electricity supply can paralyse the production activity of household and business consumers, and impede socio-economic development (Odarno et al., 2017). Yet, access to and the supply of reliable and affordable electricity are the critical issues that have not been overcome in some parts of the world. The International Energy Agency and the World Bank data in 2017 indicates that nearly 1.06 billion people, mostly in least developed countries, have no access to electricity, and 3.04 billion people still depend on solid fuels and kerosene for cooking and heating. Moreover, and given the lack of reliable electricity supply, it is estimated that worldwide the electricity demand will increase by 30% between 2017 and 2040 (International Energy Agency, 2017). This means many countries will need to significantly invest in electricity infrastructure to respond to the rising demand. The International Energy Agency estimate that US$38 trillion must be invested worldwide in energy supply infrastructure from 2011 to 2035 (with US$17 trillion to be only invested in the electricity sector) (Vagliasindi, 2013).

The challenge of meeting this increased demand for electricity and other basic infrastructure requirements, alongside tight public budget constraints, have led to governments promoting private sector participation. As an arrangement for private sector involvement, many governments have been involved in public private partnerships (PPPs). From the 1990s, a trend of PPP implementation has become evident, as governments have responded to growing demand for new public infrastructure and public services. By 2003, the largest number of PPP projects in developing countries was represented by the energy sector, with 70% of investment going to electricity generation (OCED, 2005). In 2017, the biggest sectoral investment continued to be in the energy sector which accounted of US$51.9 or 56% of total private participation investment (The World Bank, 2017). It is believed that PPPs offer the best capabilities of both the public and private sectors

combined, since the private sector brings its resources, management skills, and technology; and the public sector its regulatory actions and protection of the public interest (Raquel and Andrade, 2010). Part of their extensive use has been claimed to be due to a financial advantage as PPPs are adopted when government revenues are insufficient to meet the growing demand for infrastructure maintenance and expansion (Bunch, 2012).

From an ideological perspective, PPPs are considered to be a suitable alternative institutional arrangement to either markets or hierarchies (e.g. Jamali, 2004; Kwak et al., 2009; Elsig and Amalric, 2008). Reasons for market failures such as monopoly and externality have led governments to take a direct role in infrastructure provision (Ho and Tsui, 2009; McQuaid, 2000). However, problems such as slow and insufficient decision making, insufficient organisational and institutional frameworks, and a lack of competition and efficiency that emerged in a purely public approach have caused government failure as well (Kwak et al., 2009). As both of these modes of governance have not resulted in the effective and efficient delivery of public infrastructure development projects (Jamali, 2004; Kwak et al., 2009), PPPs have emerged as a middle path and a key vehicle for implementing public and social policies (Osborne, 2000).

The perceived advantage of using PPPs, in particular in many developing countries, for investment in public infrastructure services and facilities has emerged from external pressures by leading international agencies (Kahyaogullari, 2013). For instance, to improve the performance of the energy sector, structural reform plans have usually focused on markets and encouraged privatisation and the use of PPPs (Vagliasindi, 2013). This ideological pressure is reflected in policy prescriptions labelled in 'Washington Consensus' (Williamson, 2004). As Branston et al. (2006b) state, this has left no room for governments in positioning privatisation in strategic sectors of the economy. In other words, reforming strategic sectors – such as electricity – on the basis of 'Washington Consensus' policy prescription has ignored broader public interest concerns and the wider aims and objectives of socio-economic development (Branston et al., 2006b).

With the growing popularity of their implementation, the extent to which PPPs serve the wider public interest has attracted increasing scholarly attention (e.g. Grimsey and Lewis, 2004; Hodge and Greve, 2010; Wang, 2009; Skelcher, 2010). However, ensuring public interest within such structures is a key challenge that so far remains largely unevaluated.

Public interest is defined in this study as the shared concerns of people who are both directly and indirectly affected by decisions of PPPs. This study, therefore, contributes to the area of the governance of PPPs as a complex form of public infrastructure and service provision. Specifically, the study focuses on exploring democratic governance and the performance of the market-based reform of the strategic and important sector of electricity, and how PPP projects might be in the public interest. The argument of the study is applied in the context of PPPs in the electricity sector of the Kurdistan Region of Iraq (KRI), a developing economy.

1.2 Problem Description and Research Questions

The involvement of the private sector has been viewed by governments to fulfil the promise of efficient and effective delivery of public infrastructure/services. However, PPP experiences worldwide have shown that this potential has not been achieved in practice. Many evaluations of PPP success in infrastructure sectors have found that PPP projects have not met the public policy objectives set by governments (e.g. Hodge and Greve, 2007 and 2010). An enduring concern is that public interest is not always served in PPP projects because of governance, financial, and/or accounting issues.

Some PPP studies place emphasis on the stewardship of the governmental entity to preserve and enhance public interest (e.g. Bunch, 2012; Zhao et al., 2011; Hodge and Greve, 2010; Hayllar, 2010; Hodge and Greve, 2007; Forrer et al., 2010; Dredge, 2010) and on the public sector to be kept in charge of important domain decisions in PPPs (e.g. Bunch, 2012; Ortiz and Buxbaum, 2008). Indeed, the intervention of the private sector in public infrastructure provision does not mean an inactive role for governments but rather the involvement of governments should be maintained because PPPs do not necessarily reflect 'less government', but a different governmental role, as believed by Jamali (2004). While, in many PPPs in practice, poor implementation including inadequate government regulations or skewed incentives have endangered the intended public benefits (Brinkerhoff and Brinkerhoff, 2011). This study sees that the strategically important sectors of the economy reformed via PPPs necessitates a broader analysis of governance. It argues that as a way to serve the public interest a democratic governance is needed (Bailey et al., 2006).

The change in the structure and mechanism of governance by which the infrastructure sectors are now governed requires the analysis of PPP governance and of the question of how this governance fits into democratic context (e.g. Hodge and Greve, 2010; Skelcher, 2010). As there is an increasingly significant concern regarding the democratic governance of PPP projects and public participation (e.g. Hodge and Greve, 2010), this study argues that when affected stakeholders can participate in the strategic decision-making process, public interest is better served within PPP structures.

In conducting the analysis of PPP governance, the present research applies the basic ideas of the 'Strategic Choice Framework'. According to the Strategic Choice Framework (SCF), for the governance of any economic activity to be in the public interest, the governance structure should be inclusive to the extent to which it allows the wishes and aims of the people to be incorporated into the strategic decision-making process (Cowling and Sugden, 1998, 1999; Sacchetti and Sugden, 2003). According to the SCF, strategic decisions are those that affect all interested parties but are generally decided by a few elite actors, potentially leading to the spectre of 'strategic failure' where public and private interests do not necessarily coincide (Cowling and Sugden, 1998, 1999)[1]. In the case of public projects, strategic failure can arise when the 'few', who make decisions about infrastructure development policy, may not equally represent the interests of all stakeholders that are affected by these decisions whether directly or indirectly. To serve the public interest, decision makers should take account of all interested and affected stakeholders when making strategic decisions.

Following the analysis by Cowling and Sugden (1999), Sugden and Wilson (2002), Bailey et al. (2006), and Branston et al. (2006b), this study argues that the impact of strategic sectors' reform is determined by changes in governance which is defined in terms of strategic choices. Therefore, the argument here is on who makes strategic decisions in PPP projects and the basis upon which they are made. This proposition is based on the perception that the external prescriptions of developing or reforming the strategic sectors such as electricity exclude the aims and objectives of those who seek their own

[1] For example, firms take strategic decisions on employment, production and industrial location that orientate their strategic operations. The strategic decision of say a multinational corporation to shift its production operations from one location to another, is likely to represent the interests of the company's corporate elite and not those of their workforce and the wider public. This would constitute a 'strategic failure' (Cowling and Sugden, 1998, Coffey and Tomlinson, 2006).

development, and that the analysis of success has been focusing on the market structure such as competition and regulation (Branston et al., 2006b). The evaluations of success of reform plans have also relied on development indicators. Following the suggestion by Branston et al. (2006c), this study also sees that reforming the electricity sector through the PPP implementation is the choice of many governments, however, the sector's strategic decision should reflect the diverse and democratically chosen wider public objectives that ought to be determined for the sector. Therefore, drawing on Branston et al. (2006c), in evaluating the performance of PPPs a wider stakeholder aims and objectives for development must be relied on to determine how the sector being reformed has performed.

The argument here implies that a democratic governance of PPPs is needed. For the governance of PPPs to be in the public interest, it has to be extended to include all that are governed. This can be achieved by involving the wider public in strategic decisions (Branston et al., 2006a). PPPs, however, have a multitude of stakeholders and the role of their participation in PPPs has recently gained attention (e.g. Hodge and Greve, 2010; Foo et al., 2011; Elsig and Amalric, 2008; Torchia et al., 2013). Participation, defined as a process that engages stakeholders in strategic decisions, can help stakeholders extend their voice in strategic decisions and has a role in controlling the few who have power to make decisions. It appears that 'voice' is direct and straightforward to be used in situations of disputes (Hirschman, 1970). Voice is critical to democracy and SCF incorporates 'voice' and suggests that through engagement in decision making, people can use voice to articulate their interests to improve the situation. It is at the centre of strategic failure (Branston et al., 2009). Therefore, the SCF suggests that to avoid 'strategic failure' the democratic governance should incorporate the various interests of stakeholders and for the outcomes to be in the public interest. This reflects the importance of a focus upon how PPPs are governed.

In analysing PPPs from a governance approach, this study assesses the performance of PPP projects and the KRI's electricity sector as a whole, and in particular, the governance structures. In many PPP studies, the focus is on economic efficiency elements such as cost, time, and quality, in terms of evaluating PPP success (e.g. Henjewele et al., 2011; Raisbeck, Duffield and Xu, 2010). While these are clearly important, the present research argues that a broader stakeholder perspective for evaluating PPP success should be considered when assessing the extent the PPP projects have performed to meet diverse stakeholders'

objectives and achieve outcomes in the public interest. It assesses, furthermore, the structure of strategic decision making and focuses on participation in its analysis of PPPs governance. The two critical issues in relation to widening participation in strategic decision-making are: the level of participation offered, and whether participation is influential and how interested stakeholders of PPPs can achieve effective participation in strategic decision making and development processes. These concerns in widening the democratic participation need to be further addressed and in doing so the concept of 'Trinity of Voice' by Senecah (2004) is adopted. This is to examine the way that stakeholders' engagement in the strategic decision-making process can be effective. The aim of the study is to indicate whether PPP governance provides a common ground for stakeholders interested in PPPs that can foster their engagement in strategic decisions. Accordingly, the following questions will be examined:

1- How PPP projects and the electricity sector as a whole have performed in meeting diverse stakeholder objectives and to what extent are outcomes in the public interest?
2- How are PPP projects governed and what implications do PPP governance structures have on the public interest?
3- To what extent does the governance of PPPs allow for inclusive participation in the strategic decision-making process? How can this participation be influential?

1.3 Significance of the Study

Beyond the fact of being a tool to access private finance to meet the demand of infrastructure projects, the impact of PPPs on the attainment of the public interest is crucial. It is worth investigating how the public interest can be served in PPPs. The central premise of this study is the potential for enhancing democratic governance to involve those who have an interest and allow for diverse stakeholder participation to make PPPs operate in the public interest. Therefore, the novelty of this study and its contribution in the PPP literature can be shown in two points.

First, it is about a governance approach to address the public interest that applies to the analysis. The study proposes that the diffused structure of governance to allow for diverse interests to be incorporated in PPPs can serve the public interest. In doing so, the study specifically adopts the SCF through the novel use of the Senecah's (2004) 'Trinity of

Voice' concept. This allows us to better gauge the efficacy of more democratic governance mechanisms. This study will therefore address the gap in the PPP research area that calls both for assessing the governance of PPPs from a broader stakeholder perspective and for investigating the question of how the public interest could be served.

Second, the study enriches the literature and our understanding of PPPs through a unique Case Study investigation of a developing economy, the Kurdistan Region of Iraq. By conducting a PPP analysis from the context of a developing economy, the study will offer a different perspective on PPP experiences, since existing studies have largely focused upon cases in Europe, the U.S., and Australia (Chen et al., 2013). Recently, the adoption of PPP initiatives has become evident in the Kurdistan region as it seeks to deliver a public infrastructure development policy. This is mainly to supply the funds that are needed to fill the huge financial gap in the investment of demanded electricity infrastructure (Kurdistan Regional Government and UNDP report, 2012). Furthermore, the provision of reliable electricity in the region, even after the implementation of PPPs in the electricity generation sector, is an issue that has been much debated.

1.4 Organisation of the Thesis

The thesis includes eight chapters. After the introduction chapter, the remainder of the thesis is organised as follows.

Chapter Two provides an in-depth and critical literature review on PPPs. Specifically, it covers the definition, forms, rationale of PPPs, their limitations and pitfalls, alongside concerns about the 'public interest'. It then presents the theoretical background of the study which draws upon the 'Strategic Choice Framework' literature. The SCF informs the analysis of the governance of PPPs and focuses upon the performance, and governance structures that should be diffuse and allow a wider participation of all affected stakeholders. Informed by the SCF, the evaluation framework is developed for the analysis of performance. The developed framework complements the traditional PPP performance evaluation approaches and provides a broader perspective that explores wider perceptions regarding PPP impacts on the outcomes. The narrow view of PPP performance evaluations has identified stakeholder groups of PPPs as the public client, the private sector, and the general public. In the developed framework, these groups are extended to include wider

interest groups of the public sector, private partners including project companies and EPC contractors, the public sector employees, environmental groups, consumers, residents near power plants, investment boards, provincial councils and labour unions. As each stakeholder has different objectives and retains different perceptions about the performance of PPP projects, this necessitates several Key Performance Indicators (KPIs) to be developed for the analysis in relation to PPP stakeholder objectives. While the SCF offers theoretical support for the implications of strategic decisions on the efficiency of an industry or a sector, in the effort of obtaining the best from PPPs, the challenge of 'practice of contracting' might be confronted (Reeves, 2008; Van Den Hurk and Verhoest, 2016). To integrate a wider perspective to understand dynamic economic efficiency through choices of coordination (quality of exchanges in contracts), the concept of 'practice of contracting' is incorporated into the developed evaluation framework. The chapter also outlines the evaluation framework for analysing the governance structures of the PPP projects and the electricity sector as a whole. The conceptual framework utilises the SCF approach and integrates other traditional governance elements to identify wider issues in the governance structure such as: transparency and accountability, public trust, interaction and relationship development, and conformity to partnership purpose. The identified dimensions/constructs for analysing the governance structure are based on the democratic governance perspective, and on the ways that the democratisation of governance process can be achieved. To explore more inclusive governance structures, widening public participation is a key focus of the SCF, and in this regard, the chapter reviews and incorporates Pretty's (1995) participation typology. The SCF also has not comprehensively addressed the effective ways for the 'voice' to be influential, and so the chapter also incorporates the concept of 'Trinity of Voice' by Senecah (2004). The chapter highlights the main focus of the SCF that informs the conceptual framework of evaluating the performance, governance structures of PPPs, and stakeholder participation from a boarder stakeholder perspective in the context of KRI's electricity sector.

In Chapter Three, details of the research methodology for the Case Study of the KRI is presented. The chapter outlines the research design applied to the study of governance of PPP projects within the analytical framework of the study informed by the SCF. The chapter presents the philosophical position underpinning the assumptions of the study. The study employs a case study research strategy, developed by Yin (2014), for undertaking an analysis of the governance of PPP projects, in relation to the type of PPP adopted. This

study provides a broad perspective for analysing the PPP experience, in light of the SCF and the PPP literature, and employs a qualitative study approach. The chapter explains the purpose of the qualitative study and rationale for adopting a case study design in detail. The main two methods for data collection are semi-structured interviews and focus groups with wider stakeholders of PPP projects. The analysis of the basic sub-units of wider perceptions in terms of the most obvious challenges faced in the governance and performance of the PPP projects, and effective stakeholder participation in strategic decision making of Build-Own-Operate (BOO)[2] projects and development process of the electricity sector is further supplemented by documents and data from the public-sector directories and Ministry of Electricity of KRI (the so-called 'grey literature').

Chapter Four provides an overview of the electricity sector of the KRI as the context of the analytical framework. This chapter presents an historical and contemporary review of the status of the electricity sector and its structure after the implementation of the development plan of the electricity sector by the Kurdistan Regional Government. At the beginning, an introduction to the KRI and some development facts about the KRI's economy and its history are presented for wider context. The chapter then reviews the evolution of the electricity sector. The current structure of the electricity sector, which includes the implementation of a PPP policy, through the use of BOO projects is highlighted along the details of the development framework for the electricity sector and the engagement of Independent Power Producers (IPPs) in the electricity generation sector.

In Chapter Five, a post-implementation evaluation of the performance of BOO projects and the electricity sector is presented. This evaluation is unique since – unlike conventional (neo-classical) analyses – it draws upon the perspectives of a variety of affected stakeholders. The analysis of PPP evaluation uses the developed evaluation framework that adopts both traditional performance criteria and SCF criteria that emphasise operational performance in terms of the way that the PPP process contributes to efficient operation and effective management of the public provision service. The conceptual framework is applied to the case of BOO projects in the electricity generation sector of the KRI. The analysis

[2] BOO is a type of PPP schemes in which a private company builds, owns and operates a facility with no finance from the government. Although the facility (e.g. a power plant) remains in the ownership of the private company, the government has an obligation to purchase a service (e.g. produced electricity) provided by the private company on an agreed price during a long-term contract.

relies on semi-structured interviews and focus groups that explore stakeholder perceptions of the BOO implementation, outcomes, and performance.

Chapter Six provides an analysis of the governance structure of PPP projects and the KRI's electricity industry in light of the SCF. The chapter examines the structure of the market-based governance of the electricity generation sector and the development of the wider electricity sector as a whole. The analysis relies upon interviews and focus groups carried out with diverse stakeholders of the BOO projects. This analysis is based on the application of the conceptual framework developed to the electricity sector of the KRI. The chapter presents the governance issues and their implications on wider stakeholder interests from the perceptions of the stakeholder groups.

In Chapter Seven, the key aspects of limited public participation in the BOO governance and the design of an effective process to engage stakeholders to have voice in the strategic decision-making process are explored. The analysis is conducted in light of the SCF, to investigate to what extent the interested actors have given opportunities to participate and can influence the strategic decision-making process. In addressing the effective ways for the 'voice' to be influential, the concept of 'Trinity of Voice' by Senecah (2004) provides the critical elements for investigation and exploring an effective design for engagement of stakeholders in governance and strategic decision-making process.

Finally, in Chapter Eight, the study concludes. The chapter highlights and summarises the important findings that the study has arrived at. Concluding remarks then follow on the performance of PPP projects and on the ways the sector being reformed via PPP is to be governed. The chapter also considers the broad limitations of the current study and offers suggestions for future research on PPPs and recommendations concerning PPP policy in the KRI and on the broader use of PPP.

Chapter Two
Literature Review and Theoretical Framework

2.1 Introduction

In this chapter, the theoretical framework for analysing the governance of public private partnerships (PPPs) is presented. This study argues that the most appropriate way to analyse PPPs is to focus on governance. The change in the structure and mechanism of governance of infrastructure sectors calls for analysis of governance and how this governance fits into a democratic context (refer to Chapter One). This study explores the democratic governance of PPPs and presents it as fundamental to serve the public interest. The study applies the Strategic Choice Framework (SCF) and argues that the impact of reform of strategic sectors such as the electricity sector is determined by changes in governance, which are defined in terms of strategic choices (Branston et al., 2006b). The SCF implies a critical governance analysis to consider what is in the public interest. To explore the study's argument, the PPP projects in the context of the electricity sector of Kurdistan Region of Iraq (KRI) are selected. The study also examines stakeholder participation in the strategic decision-making and development process of this sector. Through their participation, stakeholders can extend their voice in strategic decisions, and influence the few who have power to make decisions about PPPs.

Prior to presenting the SCF, the chapter reviews the literature about PPPs. In Section 2.2, we highlight the various definitions applied to PPPs in order to adopt a definition of PPPs for this study. The section then highlights forms of PPPs, along with the motives and reasons for PPP implementation, and presents the most critical concern raised by the literature, which is the challenge associated with serving the public interest in PPPs. In Section 2.3, the concept of public interest is defined in the context of PPPs. Section 2.4 highlights the origin and reasons for choosing the SCF and explains its alignment within this study to investigate the governance of PPPs. Also, in the section, the SCF's main focus is presented, which serves as a lens through which to review the PPP literature on performance and governance structures, and also informs the development of conceptual framework to assess the performance and governance structures of PPP projects and development processes. The section also highlights widening participation in strategic decision making and development process and provides the analytical framework for the

level of participation in PPP projects that this study takes into further investigation. Then, in Section 2.5 conclusions are drawn on the basis of what has been presented throughout the chapter.

2.2 Public Private Partnerships (PPPs)

In recent years, the market for PPPs has grown markedly in both developed and developing countries (Percoco, 2012; Bel, Brown and Marques, 2013). This growth has been accompanied by a worldwide increase in the number of analytical studies of PPP. Despite this, there is no clear agreed definition of PPPs (Kwak et al., 2009; Hodge and Greve, 2007). Furthermore, the defining features and knowledge about how PPPs function in practice, and the criteria for assessing them, also remain undetermined (Weihe, 2009; Velotti et al., 2012; Forrer et al., 2010). In this section, the PPP literature has been reviewed to identify features that best describe PPPs and to provide a proper definition for this study. The section also outlines the motives behind PPP implementation and challenges associated with PPPs.

2.2.1 Definition of PPPs

The absence of a single meaning assigned to PPPs is perhaps due to the existence of many forms of PPPs and particular situations in different countries (Tang et al., 2010). Osborne (2000) noted some of the diverse uses of PPPs. He observed that besides PPPs being a cornerstone of the 'New Labour' government in the UK to develop stakeholder society, such initiatives have been used as a tool to implement significant social policies. He goes on to state that PPPs have also become a means to restructure the provision of public services to meet social needs and to develop civil society as in the aftermath of communist regimes in Hungary, as well as to regenerate local urban communities as in the USA, amongst others (Osborne, 2000).

PPPs are increasingly referred to as a mechanism to extend the involvement of the private sector in the provision of infrastructure and public services (e.g. Spackman, 2002). In recent years, governments promote PPPs as an alternative way to finance and deliver public services in the time of fiscal deficits (e.g. Forrer et al., 2010; Bel et al., 2013; Saussier, 2013). Being viewed in this way has led to emerging very vague definitions in which the focus is mostly on the infrastructure financing, construction, operation, and maintenance.

Furthermore, Brinkerhoff and Brinkerhoff (2011) suggest that definitions based on such specific functions are rather obstructive in delineating the key features of PPPs.

The simplest definition used to describe PPPs is a working arrangement based on mutual commitment between the public sector and any other actor outside the public sector (e.g. Bovaird, 2004; Ball, 2011). However, such simple definition of PPPs does not include the distinct features that differentiate these arrangements from other types of relationships which are often considered to be partnerships. It also reinforces the need to understand how collaborative these arrangements have to be in order to be considered as partnerships (Lonsdale, 2007).

PPPs do not include those relationships between organisations that are based on traditional contracting principles of management, monitoring, and enforcement of a detailed specification contained within a legally binding agreement (Bovaird, 2004). The nature of PPP agreement is based on a long-term contract (Hodge and Greve, 2007). These contract-based arrangements or 'mixed enterprise' are under public and private ownership (Wettenhall and Thynne, 2011). One side of the ownership structure is a publicly owned organisation, such as the government, and the other side is a privately-owned organisation, such as a business enterprise (Velotti et al., 2012). The relationship in these arrangements therefore is recognised as a dyadic relationship, which can be referred to as the collaboration between two independent organisations (inter-organisational linkage between a public actor and a private actor) (Singh and Prakash, 2010). It is defined in terms of both a relational and a structural perspective (Velotti et al., 2012). According to Brinkerhoff and Brinkerhoff (2011), two distinct elements of this relationship clearly determine what can be considered as partnerships or not. They are mutuality and organisational identity. Mutuality refers to the absence of hierarchal relationship based on decision-making equity, reciprocal accountability, trust, and respect (Brinkerhoff and Brinkerhoff, 2011). Organisational identity indicates the perception of an organisation's members and external partners, where in PPPs this feature is fundamental given the aims of the public and private sectors and in determining success of the partnership (Velotti et al., 2012).

Drawing upon Hodge and Greve (2007), therefore, two dimensions of PPPs are important. The first is financial; how are public and private actors engaged financially in PPPs. The

other one is organisational; how closely public actors and private actors are organised. Reflecting on this, partnerships involve cooperation between parties to achieve common goals and criteria of PPP relationships should broadly qualify clear assignment of responsibilities and areas of competence between the partners in the pursuit of common endeavour (Jamali, 2004). In the partnership, the private partner is given a role in the process of decision-making and production of the public good or services (Wang, 2009), and the private partner bears risks of joint production (Forrer et al., 2010). So, both parties share some parts of the risks involved.

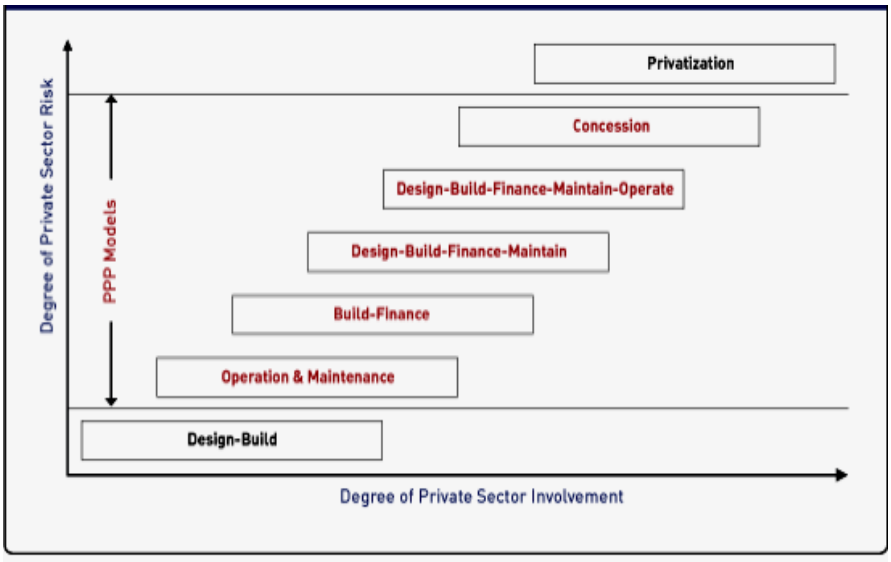
Keeping these features in mind, this study goes with the line of thought by Brinkerhoff and Brinkerhoff (2011) to adopt a definition of PPPs, who offer a robust definition based on scrutinising the majority of those characteristics are required in defining partnerships that involves the public and private sectors. PPPs can be defined as '*a cross sectoral relationship where the actors involved bring both commitment and competence to the table, thereby creating the classic synergy (the whole being more than the sum of the parts*' (Brinkerhoff and Brinkerhoff, 2011, p. 3). Brinkerhoff and Brinkerhoff (2011) also listed the following features that represent the fullest expression of an *ideal* partnership:

- Jointly determined goals.
- Collaborative and consensus-based decision-making.
- Non-hierarchical and horizontal structures and processes.
- Trust-based and informal as well as formalized relationships.
- Synergistic interactions among partners.
- Shared accountability for outcomes and results.

2.2.2 Forms of PPPs

PPP can be found in different types, from a very simple form of *Design-Build* to more complicated forms recognized as *Design-Build-Finance-Operate* or long-term concession agreements (Ortiz and Buxbaum, 2008). Zhao et al. (2011) categorize the various types along two dimensions: 'facility development stage' and 'level and type of private involvement'. In these types of contracts, the degree of private participation differs from low to high, and with the diverse level of risk transfer to the private partner (Bel et al., 2013). The following figure illustrates the types of PPP according to the increase of private involvement and the degree of risk allocation.

Figure 2.1 Scale of PPP: Risk Transfer and Private Sector Involvement



Source: The Canadian Council for Public–Private Partnerships (cited in Siemiatycki, 2013, p. 8)

The use of similar and different forms of PPP can be noted across different countries. For instance, Efficiency Unit in Hong Kong describes six forms of PPP such as: creating wider markets, private finance initiatives, joint ventures, partnership companies, partnership investments, and franchises (Tang et al., 2010). Rodriguez (2017) has provided an alternative means of categorising the most common forms of PPP, based on the need and option for funding and ownership of the infrastructure projects/assets. Rodriguez recognises and defines the following forms:

- *Operation and Maintenance Contract*

The private partner operates and maintains the project which is owned by the public sector.

- *Traditional PPPs*

The public partner involved in the partnership acts as a contracting officer. Its responsibility is to look for funding and have overall control over the project and its assets.

- *Design-Build*

The private partner holds the responsibility of design and building the infrastructure, and the public partner gets the fund for the project. The public partner has control over the ownership of the project and the assets generated.

- *Design-Build-Operate*

The private partner designs, builds and operates the project. The public partner owns the infrastructure of the project and provides the funds for construction and operation.

- *Design-Build-Operate-Transfer*

The private partner designs, constructs and operates the project for a limited period of time, then the ownership of the project is transferred to the public partner.

- *Design-Build-Finance-Operate*

The private partner gets financing for the project and then designs, constructs and operates the project. The public partner only funds the project when the project is active or operational.

- *Build-Transfer-Operate*

The private partner builds the project and then transfers the project to the public entity. The operation of the facility then is leased to a private operator by the public entity under a long-term lease contract.

- *Build-Own-Operate-Transfer*

The private partner builds, owns and operates the project for a limited period of time and then the ownership of the facility is transferred to the public partner.

- *Build-Own-Operate*

The private partner builds, owns and operates the project and has responsibility for the profits and losses generated from the project over time.

- *Lease PPP*

The public owner leases the facility or asset to a private operator. The private operator is responsible for operation and maintenance of the facility according to a lease agreement, including addition or any further investment required.

- *Concession*

The public sector partner gives a private concessionaire all the rights of operation and maintenance of the facility for a specific period of time under certain contract conditions. The ownership remains with the public partner, but the private partner has the right for undertaking any additional investment while the project is under its operation.

- *Divestiture PPP*

The public sector transfers the infrastructure asset or the sector, fully or partially, to the private sector. The public partner might retain some of the control over the investment and modernizations of the facility in order to make sure the services continued to be provided.

2.2.3 Motives and Reasons for Implementing PPPs

Beside access to private financing, a range of economic, social, and political factors primarily motivate the growth of PPPs. These factors are grouped around micro-economic

arguments that concern efficiency and effectiveness of public spending, and macro-economic factors that concern government budgets (McQuaid and Scherrer, 2010). It should be noted that the motives behind embracing PPPs might differ from one country to another, or from one economy to another. Also, from the policy arena, the types of PPPs chosen might differ between the various parts of the public sector of one country (Leiringer, 2006). Political ideology often also influences the decision as to which form of PPP is adopted (Zhao et al., 2011).

For instance, to explore and compare key drivers for the adoption of PPPs in China and Hong Kong, Ke et al. (2009) identified 15 different drivers. It was found that, particularly in China, economy-related drivers such as the high cost of public infrastructure procurement and services put much pressure on the government to initiate PPPs. In Hong Kong, in contrast, efficiency-related drivers ranked higher due to financial availability and a budget surplus over many years. Drawing on another experience in the USA, the lack of public sector experience with concessions; growing financial needs; and political interest are the main factors that have promoted entering into the long-term transportation concession agreements (Ortiz and Buxbaum, 2008). Based on their analysis of the Private Finance Initiative (PFI) in the UK, Hellowell and Pollock (2010) contend that this form of partnership has been implemented because among successive governments it has been considered ideologically preferable to expand the private sector's involvement in economy. This preference is based on the perceived superiority of private over public models for investment and delivery of services, and a political imperative that encourages a high level of capital investment in social and economic infrastructure at a time of tight fiscal constraint.

It has also been argued that deregulation and changes in economic structure sometimes motivate the implementation of PPPs in some specific public sectors. Jamali (2004) explains the resonance of PPPs, specifically in developing countries, by referring to the belief that revisiting roles of the state and the private sector has been challenged because of the prominence of the perceived ideal of a free market economy, whether adopted in these countries willingly or under indirect persuasion. She argues that this has led to challenging the traditional assignment of roles and functions between the sectors and noted that new forms of partnerships and collaborations is necessitated across organisational boundaries by the interdependencies of the free market economy.

Some other explanations involve the arguments that the main reason behind PPP development is the need for institutional reaction in the case of market or government failure, or when a combination of both is present (Elsig and Amalric, 2008; Sorensen and Torfing, 2009; Kwak et al., 2009). In bringing solutions to public service provision, developing such arrangements means that hierarchical methods of working are no longer adequate (Mandell and Keast, 2007). It is believed that markets, as efficient systems of non-hierarchal coordination, should not be taken for granted. As both traditional in-house hierarchies of public service provision and purely private approaches failed to deliver effectively public infrastructure projects (Bovaird, 2004; Kwak et al., 2009; Elsig and Amalric, 2008), governments have moved towards adopting PPPs. It denotes that PPPs are expressions of governance modalities alternative to hierarchies and markets (Brinkerhoff and Brinkerhoff, 2011).

In short, highlighting the major of reasons for a government's decision to implement PPPs, there are a number of economic reasons. Firstly, the fiscal constraints to build and meet growing demand for basic infrastructure motivate the public sector to channel private financing to efficiently build and develop major infrastructure projects. The private sector is incentivised to aim for greater efficiency through the implementation of innovation and stronger discipline to control the budget and scope of projects (Russell et al., 2006). Secondly, for a quick response to meet the demands of infrastructure and service procurement, engaging the private sector accelerates the construction and delivery of projects. In this way, a government can overcome its limited ability for the timely delivery of infrastructure projects. Thirdly, the public sector can incorporate the private sector's skills and knowledge to enhance its managerial capacity. All of the above are dominant features of PPPs, in which risks are shared and innovative and technological skills that drive greater efficiency and cost effectiveness are brought in (Tang et al., 2010). Therefore, the persuasive motivation for using PPP initiatives is reflected in the promise of the public sector to assure the best possible performance in providing the public infrastructure projects (Henjewele et al., 2014). Ideological reasons also encourage private sector involvement in the economy. As modes of governance, both market and hierarchy, have not resulted in the effective and efficient delivery of public infrastructure development projects, PPPs have been implemented as a middle path and become a key vehicle for carrying out public policies and engaging the private sector in the delivery of public infrastructure and services.

It must be noted, however, that the PPP initiatives have faced dissatisfaction. Several concerns such as whether the benefits of PPPs can be attained in every context, or whether governments' views of better efficiency and effectiveness of private sector's management can be regarded as enough incentive to support the PPP decision. With the increase and desire to implement PPPs, the invitation of private organizations to the provision of public services and their intervention in the economy has led to an important continuous debate, which is serving the public interest (e.g. Hodge and Greve, 2007). The following section provides examples of challenges associated with PPPs.

2.2.4 Challenges Associated with PPPs: Serving the Public Interest?

The PPP experience has not always shown that positive results are created (e.g. Bunch, 2012; Hodge and Greve, 2007, 2010; Chen et al., 2013; Hellowell and Pollock, 2010). Yet proponents see partnership initiatives as a 'Value for Money' (VFM) approach (i.e. see below for definition and further details). PPP scholars such as Russell et al. (2006) consider that PPPs can bring greater efficiencies – more production/output for the same money spent – through the implementation of innovation achievement and better discipline of controlling the budget and scope of projects. Furthermore, some other net benefits for the society of infrastructure procurement through PPPs have been listed such as enhanced government capacity; innovation in delivering public services; reduction in the cost and time for project implementation; and the transfer of major risks to the private sector which is to secure value for money to taxpayers (Li et al., 2005a). Other experiences show benefits that are apparent in privately financed projects including better-defined contracts, better contract management, and design innovation (Spackman, 2002). In particular, Spackman brought an example of the benefits of PFI in the UK in which he sees that, at the strategic level, PFI has broadened the horizons of public procurement and effectively committed contractors to long-term contracts.

Despite these potential advantages, concerns regarding PPPs include that they are said to be costly, inflexible, and lead to higher taxes, create risks and liabilities for taxpayers, cut service provision and lead to incurring extra charges by users, high tendering costs, complexity in negotiation, cost restraints on innovation, and rising conflicts of objectives among project's stakeholders (Ortiz and Buxbaum, 2008; Shauol, 2009; Ke et al., 2009

citing Akintoye et al., 2001). Moreover, the private investors obtain a higher rate of return than the government (Tsamboulas et al., 2013).

Highlighting some other specific burdens of these arrangements on the public interest, some other experiences provide evidence. Taking PFI in the UK as an example, the initiative is not without controversy. The impetus of PFI are believed to be low or decline in the public investment, size of budget deficit, and public deficit or inability of government to borrow further (Sawyer, 2005). But PFI projects are criticised because of the cost and governance issues such as transactional complexity and the potential loss of transparency (Coffey and Thornley, 2009). Some other accounting issues have been noticed as well. For instance, PFIs increase the public expenditure over the lifetime of projects and understate the scale of public liabilities (Sawyer, 2005, 2007). Sawyer (2007) clarifies that under PFIs the obligations for future payments is a liability of public sector and should be included in the public debt. While not addressing this has led to confusion in the structure of the public sector's balance sheet. The concern is on liabilities in the balance sheet and ignoring assets, and these liabilities do not include commitments to future payments. Similarly, Coffey and Thornley (2009) noted that the financing of public services by the private sector is not considered as a part of the current public sector's borrowing, so future payments are placed 'off-balance sheet'. Hellowell and Pollock (2010) also bring evidence of PFI on this issue. They state that most of National Health Service (NHS) assets are 'off-balance sheet' in the Trusts annual accounts as they are considered as private assets. In addition, other significant financial problems have been noted in NHS, such as the unfunded costs of Trusts in most of the current PFIs under operation. They have estimated that Trusts under operational PFI with the value of £50 million were on average under-funded by 4.3% of their total income under Payment by Results. They state that in 2005-2006 there was a clear relationship between PFI in operation and an evidence of Trust deficits. It is believed that under-funding caused by PFI costs leads to pressure to make cuts in service provision in order to reduce deficits, in turn harming the public interest.

The public interest is perhaps the most crucial issue in the PPP arrangements. There is a need to ensure 'publicness' in PPP implementation (Brinkerhoff and Brinkerhoff, 2011). In other words, the benefits for the public should be balanced with the private interests that drive the private actors to join PPPs. As Osborne (2000) believes, PPPs should not only take place as the most cost efficient and effective mechanism for implementing public policy, but equally they need to have been articulated as bringing significant benefits in

terms of developing socially inclusive societies. Despite the technical reasons and adequate institutional capacity to adopt PPPs, the decisions to use these arrangements are often politically charged in that some private infrastructure investments might be favoured by the strategies of partnership of interests of some geopolitical and governance contexts (Zhao et al. 2011; Siemiatycki, 2013). In this regard, the emphasis is placed on the role that governments play in public service provision under PPP arrangements because the responsibility of protecting society is thought to be the duty of governments (Clifton and Duffield, 2006). However, it has been observed that many governments' capacities have been reduced to oversee PPPs and participate effectively in these arrangements to ensure that PPPs are responsive to what is demanded by citizens and contribute to a broader strategic vision of the public good (Brinkerhoff and Brinkerhoff, 2011).

It has been observed that in some partnerships there is an unequal power relation between social partners in which the partnerships may be more important for one party than the other(s) (McQuaid, 2000). McQuaid further goes on to state that this may cause significant tensions as one party may seek to adjust another partner's priority or more particularly a non-elected partner may try to coerce a democratically elected partner. Accordingly, the matter of unequal power has consequences on the operation of these partnerships in which usurping of operations of partnerships to some actors (i.e. professionals or community groups) results in problems in irrational decision-making and outcomes that increase the benefits of these actors instead of the overall welfare (McQuaid, 2000). When a few actors are often able or have power to pursue their own interests, they are more likely make decisions despite resistance from many stakeholders who may be affected by those decisions.

At the same time, however, across the globe certain PPPs experiences have not delivered their intended and consistent result (e.g. Elsig and Amalric, 2008; Bunch, 2012; Hodge and Greve, 2007, 2010). In evaluating PPP implications and whether the public interest is served, PPP scholars from the traditional perspective tend to utilise the public policy objectives – set by governments – to assess PPP projects at different stages and to indicate what have these projects delivered. For example, PPP success is often evaluated in terms of whether VFM is achieved or not. The UK HM Treasury's guide to VFM assessment in PFI defines VFM as *'the optimum combination of whole-of-life costs and quality (or fitness for purpose) of the good or service to meet the user's requirement'* (2006, p. 7). It is an ex

ante evaluation that is usually conducted as part of a process to decide whether or not to undertake PPP procurement implementation (Reeves, 2015). In a VFM analysis, the actual life cycle costs of PPP projects are compared with a hypothetical scenario, which is known as the 'Public Sector Comparator' (Morallos et al., 2009). The comparison can include other components – both quantitative and qualitative – that capture financial and non-financial elements respectively (Takim et al., 2009; Takim et al., 2011). Notably, the elements that have been frequently used to address VFM delivery along the stages of PPPs are cost, time, risk transfer, and quality.

The cost aspect of VFM delivery concerns whether a public asset or service can be provided at a lower cost under a PPP. A widespread measure is whether the project is delivered on budget (e.g. Doloi, 2012b). Timescale has also been integrated as a measure of VFM delivery (e.g. Raisbeck et al. 2010; Hurk and Verhoest, 2015), and this element concerns whether the project is delivered on time and that PPPs contribute to quick delivery of infrastructure (Reeves, 2015). Risk transfer is a key driver for VFM achievement in PPPs, where risks should be transferred to a party that is best able to manage them at the lowest costs to improve cost efficiency (Sarmento and Renneboog, 2014). To evaluate VFM in terms of influencing allocated risks, attention is paid to many of the risks that apply to projects and rise because of infrastructure investment characteristics and the complexity of the arrangement itself (Grimsey and Lewis, 2002). For example, Sobhiyah et al. (2009) investigated market and revenue risks allocation in Iranian operational PPP power projects to identify the reason of less potential to successfully achieve VFM. The continuity of high service quality is a key requirement of the public sector (Robinson and Scott, 2009). The quality element, at the construction stage of PPPs, is measured through the indicator of project completion according to design and specifications in the contract (Liyanage and Villalba-Romero, 2015). In output specifications, which provide a framework of service delivery incorporating the public client requirements and the responsibility of the private sector operator, the scope of services to be provided is defined (Robinson and Scott, 2009). The quality service performance, at the operational phase, is a service delivered as it is specified. As PPP projects progress to operational stage, the relevant element of VFM achievement is the overall satisfaction with the service (Akintoye et al., 2003). Hence, quality has been considered in the PPP performance evaluations to examine if VFM has improved or not.

The drawback of the VFM approach can be addressed in two points: the concept; and the assessment criteria. The concept has encountered widespread criticism. It is considered to be a 'nebulous concept' (Reeves, 2015), and purely focuses on financial aspects (Tsamboulas et al., 2013). This is beside the fact that once a PPP has been selected for the public service procurement there is no alternative such as a PSC to be restructured at the operational phase to reveal VFM and decide on its suitability (Shaoul, 2009 in Henjewele, Sun and Fewings, 2011). The concept issue, however, is not discussed further here as it is beyond the focus of this study. The prior exploration of elements of the VFM approach indicated that most of the studies utilised them in order to evaluate PPPs in comparison to the traditional procurement method, mostly at the initiation and construction phases of PPPs. In fact, the principal justifications of governments are faster delivery of projects, VFM delivery, and risk transfer that articulate favouring a PPP over the traditional procurement. However, satisfying these criteria, as indicators of degree of success, does not mean a positive cost-benefit ratio is ensured (Reeves, 2013).

There are few other PPP studies that relied on achieving the best value in PPPs by considering wider public policy objectives along with VFM aspects of service quality and risk transfer. Best value reflects the best possible outcomes of a process and emphasises efficiency, VFM, and performance standards (Akintoye et al., 2003). The requirements of achievement of best value are: detailed risk analysis and appropriate risk allocation; drive for faster project completion; curtailment in project cost escalation; encouraging innovation in project development; and adequate accounting for maintenance cost (Akintoye et al., 2003). Some other studies also evaluated PPPs by addressing the extent to which the objectives that are set by governments for a PPP implementation are met. For example, Hodge and Greve (2007) assessed PFI international experience from two broad policy objectives: reduced pressure on governments' budget and better VFM in providing public infrastructure. Similarly, Reeves (2015) assessed PPP role in alleviating capacity constraints, VFM delivery, and timely delivery of projects.

The current debates continue to put emphasis on addressing the extent to which PPPs might serve the wider public interest (e.g. Grimsey and Lewis, 2004; Hodge and Greve, 2010; Wang, 2009). With all these highlighted issues leading to the implications of PPPs for the attainment of the public interest, addressing the public interest in PPPs calls for a broader governance perspective (e.g. Hodge and Greve, 2010; Skelcher, 2010). The present study

argues that the change in governance (which is determined in terms of strategic choices) should be the focus in analysing the implications of PPPs on the public interest. Therefore, the study applies the Strategic Choice Framework (SCF) to economic development and the theory of the firm to understand the impacts of PPPs and the analysis of governance (Sugden and Wilson, 2002, Cowling and Sugden, 1998, 1999). The study applies the SCF to provide a broader stakeholders' perspective- unlike conventional (neo-classical) analyses- and evaluate the actual impacts of PPP implementation in the electricity sector of KRI. This approach offers a critical governance analysis of the question of what is in the public interest. Prior to introducing the SCF, the next section highlights the concept of the public interest. Then, Section 2.4 details the justification of utilising the SCF ideas and relevant concepts within the theoretical framework for analysing the PPP governance.

2.3 The Public Interest Concept

Defining the public interest properly in launching PPPs initiatives is crucial because if the public interest is ill-defined, then specific organisations or individuals might be served whose interest would not be favoured if all members of the community were represented equally (Mahoney et al., 2009). The notion of the public interest has gained its importance because it is considered as the appropriate standard of evaluation to appraise the public action (Long, 1990). Its importance also applies in economics (Branston et al., 2006a). The conceptualisation of the public interest has been richly researched in the social sciences (Mahoney et al., 2009), however, the term is often observed to be 'maligned and misunderstood' (King et al., 2010), and difficult to define (Pal and Maxwell, 2004; Budak, 2011). Furthermore, giving operational meaning to the public interest is often unattainable, even by those who make policy, or those who evaluate it (Campbell and Marshall, 2002). As a consequence, a wide array of multiple and different interpretations has been attributed to the public interest concept (Dredge and Thomas, 2009).

This attests to the need to further investigate into a lack of a working definition of the public interest specifically in the context of PPPs and to examine it through the approach of economics. According to the argument by Box (2007), the concept is indistinct and because of its importance to the field it can be re-described. Therefore, to fill the gap and provide an answer to the query that has been left unanswered about advancing the public interest

in the PPP analysis, it is necessary to first acknowledge the public prior to defining their interests.

The public can simply be referred to as all members of society, including stakeholders and interest groups - both present and future generations (Dredge and Thomas, 2009). Building on the argument by Dewey (1927), there is a need to control the extent and scope of acts in which a line must be drawn to make a distinction between the private and the public. An act is considered as private when it is confined to those who are directly engaged in it, and those who are not participants or indirectly affected by the consequences of the private act are considered to be part of what Dewey called the public. Then, if we bring the initial definition by Dewey (1927, p.15), the public is defined as "*all those who are affected by the indirect consequences of transactions to such an extent that it is deemed necessary to have those consequences systematically cared for*". Long (1990) extends Dewey's view by suggesting how the public interest emerges. He states that the shared concern of the public which emerges from the consequences of private parties' actions is therefore to be considered as the public interest. It can be said that the public discovers its shared concern with the consequences of private parties' effects and the need for their control.

Then, the functions of the public interest can be prescribed to serve as a barometer for citizens to judge governmental decisions, or as a way to placate individuals who would not otherwise be open to the concept, and a check on the public officials as they act (King et al., 2010 citing Downs, 1962). Because of the interdependency of the private and public interests, the private interest should be aligned or aggregated cogently in order for the public interest to be well defined (Mahoney et al., 2009). In accordance with the view of the public interest in the political theory, the public interest cannot be understood or even applied without the conception and the use of political power (King et al., 2010). Consequently, the public interest is essential to act as a '*lens to mediate between political power and societal interests to decide what is in the best interests of society'* (Dredge and Thomas, 2009, p. 249). The issue of power has gained prominence in the economic activities too (e.g. Sacchetti and Sugden, 2003). Specifically, in the environment of collaboration, Dredge and Thomas (2009) believe that the view of stakeholders has to be transformed, and outcomes and actions have to reflect a shared commitment and understanding of the public interest. Then, the public interest in PPPs can be seen in activities and specifically in strategic decisions of PPPs as agreed upon and shared concerns

among all of stakeholders indirectly and significantly affected by those activities and decisions of PPPs.

To address the impacts of the use of PPPs on the public interest, it has been suggested that these initiatives should enable effective achievement of service requirements, accountability and transparency, public access, and security (Hong Kong Institute of Surveyors, 2009). Accountability and transparency are considered as key elements of the public support for long-term partnerships in which some of the strategies that assure potential deals are to provide access to information and hold public forums (Ortiz and Buxbaum, 2008). Some public interest tests are also proposed to be conducted before commencing PPP projects, such as preliminary risk assessment, VFM assessment, bankability assessment, public interest test, market interest test, assessment on the private sector's capability (Hong Kong Institute of Surveyors, 2009). In particular, for the public interest test, some factors are depended on including effectiveness (in meeting government objectives), accountability and transparency, community consultation (or affected individuals and communities), consumer rights, public access, safety (health) and security, VFM, equity, and privacy (Son, 2012). However, the use of qualitative analysis is suggested because VFM assessment usually concerns the quality and cost aspects (or financial issues) of a PPP project. For that reason, Son (2012) argues that it is important for a government contracting authority to identify the public interest not only through project-specific financial evaluation but also to undertake a qualitative analysis which is derived from non-financial factors.

When addressing the question of whether PPPs are in the public interest, the financial aspects have mostly been the focus of studies too. However, PPP scholars relied mainly on evaluating PPPs by utilising the public policy objectives or the broader macro-economic concerns of reduced pressure on the public budget and better Value for Money that encouraged launching PPP initiatives (e.g. Hodge and Greve, 2007) to determine whether the outcomes are in the public interest or not. These studies have only applied a narrow perspective of markets and have left the unanswered query regarding the basis these projects should perform to achieve outcomes in the public interest. There are few studies that relate not achieving outcomes in the public interest to the way that the PPP projects and the implementation of reform plans are governed (e.g. Krawchenko and Stoney, 2011). These PPP studies support the necessity of addressing the governance question of the

change in the structure and mechanism of governance by which the infrastructure sectors are now governed, and whether the governance fits into the democratic context (e.g. Hodge and Greve, 2010, Skelcher, 2010). Studies evaluating PPPs from a governance perspective pointed to the issue of the exclusion of citizens or limited public input in the shift towards partnerships (Krawchenko and Stoney, 2011), and discussed ways that citizens become disempowered (Chen et al., 2013). The main concern in the PPP literature relates to limited opportunities for a meaningful level of transparency or public participation in PPPs and to issues of governance and accountability, and whether future decisions in these long-term contracts will be in the public interest (Hodge and Greve, 2007, 2010; Wang, 2009). While this has given a greater importance to analysing the governance of PPPs and to addressing how these PPPs might be in the public interest, the focus should be on the wider concerns in the governance of PPPs. The PPP literature has failed to completely address that focus in the analysis which secures the attainment of the public interest in PPP projects and identifies the reasons these projects are not running in the public interest in practice. In addition, addressing the public interest in PPPs has also not been supported by a theoretical analysis of how to improve PPPs. This present study argues that the PPP impacts on the public interest are better addressed through a broad governance approach and draws upon the SCF perspective to explore how the public interest can be attained in PPP projects.

The next section presents the concepts of SCF as well as other relevant concepts that should be identified in order to explore the attainment of the public interest in PPPs. The SCF emphasises that the democratic governance to incorporate the wider public and their diverse interests, and highlights the causes and implications of issues related to ignoring the interests of wider public in making strategic decisions and in pursuing economic development. The basic ideas of the SCF in attaining the public interest are further discussed in the conceptual framework for analysing governance of PPPs.

2.4 The Strategic Choice Framework for Analysing Governance of PPPs: Conceptual Framework

Although the traditional approaches which focus on a strategic objective of the achievement of best value can provide a foundation of PPP success evaluation (Akintoye et al., 2003), it is important to note that these analyses have represented particular performance objectives. The traditional perspective mainly tends to focus on looking at

PPPs and whether better VFM is achieved compared to the traditional methods of procurement. This way of evaluating PPPs is rather in accordance with the neo-classical view of markets (Reeves, 2008). However, the argument of the study goes beyond these typical concerns. The impact of reform of the strategic sectors of economy (through the implementation of PPPs) can be explained by the neo-classical view but it only focuses on production costs (Reeves, 2008). The indicators identified in the PPP literature for evaluating the PPPs are derived or based on narrow perspective. The concern of whether the objectives of strategic sectors' development reflect diverse rather than the private interests is of paramount.

The explanation offered, in the PPP literature, is the governance of sector's development through PPPs raises the question whether this change in governance fits into the democratic context. In particular, it is noted from the PPP literature, governance have become key concerns of success of PPPs (e.g. Landow and Ebdon, 2012; Patel and Robinson, 2010; Hodge and Greve, 2010; Skelcher, 2010). In complex and risky contractual long-term partnerships, governments aiming to garner the benefits of those partnerships have faced both management and governance challenges (Bloomfield, 2006). Although there have been an increasing number of studies looking at these challenges in PPPs, many have been primarily focused on issues related to risks associated with the PPP governance framework. For example, investigating a transport PPP project in Australia, Hodge (2004) emphasised the reality of the management of risks associated with formal contracts and governance. The study found that the commercial risks of the project transferred to the private sector through the PPP contract were defined and managed properly, but the governance risks were not. The issues of no publicly available economic and financial evaluations and fair tender selection have questioned the traditional checks and balances to be afforded to the projects by the government[3].

The key argument in the literature regarding these governance issues is centred on the proper design of governance mechanisms or governance structures which are considered as ways to protect the public interest (Skelcher, 2010). Governing mechanisms include contracts and agreements defined by Reeves (2013) as mechanisms that do not rest solely

[3] The study by Greve (2004) concluded that governments use PPP as a device for service purchase and quick delivery of projects and neglect due process and public policy consideration. Greve further noted that the consequences are on citizens that would pay the real price to high financial price of the project due to the absence of clarity regarding project 'deals' and the financing details.

on the authority and sanctions of government. Much of the literature based on governing mechanisms in PPPs has focused on the design of contracts and the integration of contractual aspects between the government and the private sector. Clifton and Duffield (2006), for example, argued the importance of structuring the agreements for successful governance of PPP/PFI projects and achieving VFM. Another important contractual aspect is trust and confidence in PPP contracting and relationship management (e.g. Smyth and Edkins, 2007). In fact, this aspect is fundamental in forming governance relationships between the public and private sectors. Others focus on reducing uncertainty and ambiguity to make the governance of PPPs successful (e.g. Hurk and Verhoest, 2015; Hodge and Greve, 2010). However, this is difficult to achieve, as long-term PPP contracts are labelled as incomplete contracts (Hart, 2003). This means that it is not always possible to specify contingencies and ways to confront uncertainties in PPPs when contracts are made and enforced. Another drawback of incomplete contracts is that not all transactions over contracting periods can be considered (Delhi et al., 2010). It seems therefore that the examination of the notion of governance through analysing the use of contracts will not assist in identifying the wider issues.

Nevertheless, such findings suggest that in the analysis of governance wider key democratic concerns must be recognised. As discussed by Reeves (2013), there are other wider issues (e.g. legitimacy of government actions that requires accountability mechanisms) related to the delegation of authority to the private sector in PPPs that must be considered in the context of its evaluation. Drawing on Reeves (2013), the current study focuses on identifying the wider issues of the governance of PPP projects and of the electricity industry in the context of KRI. The theoretical framework for analysing the governance of PPPs in this current study applies the SCF ideas to explore how PPP might be in the public interest and identify broader concerns. It adopts the basic ideas of the SCF to evaluate PPPs and focuses on the performance, and governance structures both in terms of the ways in which the strategic decision-making structure of the sector is formed and other concerns around the implications of this structure for PPP projects and governance of the sector generally. In light of the SCF, the determinant of the PPP impact is the strategic decision making in the sector being reformed.

The following sub-section presents the details of basic ideas of SCF and relevant concepts, which emphasise the democratic governance to incorporate diverse interests to negate the

strategic failure. The conceptual framework developed in this current study complements the traditional PPP analysis approaches in that it provides a broader perspective that explores wider perceptions about PPP performance to achieve outcomes in the public interest from the stakeholder perspective. Relying on the basic ideas of the SCF, it also highlights the causes and implications of issues related to ignoring the interests of wider public in making strategic decisions and pursuing socio-economic development. Therefore, a comprehensive analysis of governance of PPPs can be offered by utilising the SCF ideas.

2.4.1 Basic Ideas of Strategic Choice Framework

This framework is governance-centric. The SCF focuses on the structure of strategic decision-making of a firm, industry, or economy. The SCF asserts that when a few elites dominate the decision-making process, they tend to ignore the wishes and interests of those who have interests in strategic decisions. This results in a state known as strategic failure (Cowling and Sugden, 1998) (See Section 2.4.1.3). It is necessary then to examine which actors are in a strategic decision-making position and whose interests are being pursued when those decisions are made.

The basic idea of a strategic decision-making approach is derived from Coase's (1937) notion of the economic planning and associated theory of the firm. Coase (1937, p. 387) indicates that if there is to be an order in the economic system, planning by individuals who exercise *'foresight and choose between alternatives'* is necessary. His belief brings the necessity of economic planning into the modern economic system. However, the systems which Coase emphasised are characterised by the presence of very large corporations identified as *'islands of planning'*, typically transnational corporations, that plan their activities in a way that allows them to pursue their own objectives (Cowling and Sugden, 1999). Based on this, Cowling and Sugden (1998) drew upon Coase (1937) to define modern corporations as the '*means of coordinating production from one centre of strategic decision-making*' (p. 67). Firms are therefore seen in terms of being a nexus of strategic decision-making.

It appears that a firm has a hierarchal system of decision-making. Pitelis and Sugden (1986) categorised decisions into three layers including strategic, operational, and working decisions. They define strategic decisions as those that are made over strategic issues such

as the relationship of a firm with its rivals, states, and workers; its source of raw materials; and its geographical orientation. Derived from the classification, the strategic decisions are important as they determine the broad direction of a firm (Pitelis and Sugden, 1986). With the presence of few dominant actors in large corporations, specifically transnational corporations, an asymmetrical distribution of power could be observed; the power of strategic decision-making tends to be concentrated in the hands of elites with exclusive interests. Power is defined as '*the ability of an actor or group of actors to determine desired broad policies and objectives even (but not necessarily) despite the lack of willingness and resistance from others*' (Sacchetti and Sugden, 2003, p. 674).

The SCF highlights the impacts of firms and clearly identifies the causes behind the public interest not being served. The focus is on strategic choices rather than the market to indicate and understand the impacts of firms (Branston et al., 2006a). As there are diverse interests, the SCF explains that making different strategic choices leave different impacts on those concerned about and affected by activities of firms (Bailey et al., 2006). Not only have the concerns regarding the few elites that undertake the strategic decisions in large modern firms been raised in the SCF, but a similar argument related to strategic failure has also been put forward regarding economic and industry or sector development processes.

Bailey (2003) investigated, for example, the 'hollowing out' of Japanese's economy by looking at the key strategic decisions of its actors and linking the government failure approach with activities of transnational Japanese firms. Bailey argued that the issue of the dominance of few elites in decisions which conflicted with broader communities' interests needs to be considered along the government failure approach. To avoid strategic failure issues, he suggested the liberalisation of imports, and the democratisation and broadening of strategic decision making. Branston et al. (2006b), applied SCF to the development of Mexican electricity sector. According to Sugden and Wilson (2002), external prescriptions, which come to rest on one particular model of capitalism embodied in the Washington Consensuses, insist on the rapid opening of markets that serve the interests of transnational capital. Sugden and Wilson go on to state that what the state prefers is not considered because the ability to plan is transferred from governments to those controlling the transnational corporations. It may be that decision makers in transnational corporations opt for strategies that are different from those that people of localities would choose (Branston et al., 2006c). In this instance, success of elite decision makers is achieved at the likely

expense of others (Branston et al., 2006c). As Sugden and Wilson (2002) argued the objective is not to transfer the power from an 'international elite' to a 'local elite' but rather to pursue a dual approach: the need to follow an international protocol in a global system while simultaneously fostering local policies that are directly rooted in localities' own objectives. Hence, transferring economic power that is concentrated in the hands of a few large corporations to government institutions does not lead to any change in the hierarchical structure of strategic decision making. Branston et al. (2016) contend that this in its turn means that possessing economic power enables strategic decisions to be made despite resistance from other interested parties. This implies that excluding various interests in the strategic decision-making process harm the public interest.

The SCF notes the concentration of decision-making power in the hands of few elites in the economic development process similarly to the way that in large firms. Branston et al. (2016) imply that the strategic focused theory of firm has implications for economic governance. Following Zeitlin (1974), they believe that to govern is to control and to control is to determine the broad objectives of production. Drawing upon Zeitlin (1974), Branston et al. (2006b) further discussed that to choose the development objectives means to determine the strategy of development. The emphasis within the strategic decision-making approach literature is on who governs and whose 'strategic' interests are prominent (Branston et al., 2016). Thus, the focus is on the strategic choices.

The SCF identifies the development criteria, that are not rooted in the aims and objectives of people who are seeking their own development as the strategic decisions of others (Sugden and Wilson, 2002; Branston et al., 2006c). The SCF suggests that ways need to be sought to incorporate all interests in the strategic decision-making process. It focuses on the identification of ways for the democratisation of the decision-making and hence the analysis of governance (Cowling and Sugden, 1998, 1999).

In the current study, we draw upon the considerations of Sugden and Wilson (2002), Bailey et al. (2006) and Branston et al. (2006b, 2006c) to argue that democratic governance is important for the PPP projects to be in the public interest. An essential consideration while analysing governance according to the SCF is the change in governance, which is determined by the ability to take strategic choices (Branston et al., 2006b). Therefore, Branston et al. (2006b, 2006c) emphasis of changes in governance as the determinant of

the impact of economic reform, including the privatisation of any sector in any economy, is particularly useful to our analysis here as it allows us to consider PPPs in the context of broader concerns. To this end, Branston et al.'s (2006c) conceptualisation and Sugden and Wilson's (2002) suggestion and definition of development in terms of democratically determined objectives are generative for exploring how PPPs implementation can indeed be a strategic decision for the reform of strategically important sectors such as electricity and consider the democratic involvement of people affected by PPPs in the determination of the development path of the sector. It is here also that Branston et al.'s (2006b, 2006c) attention to the analysis of actual and potential role of the sector in development, which is based on the specific concept of development, is also of value for informing how to understand and evaluate the performance and governance structures of PPPs. The SCF identifies the development that should be rooted in the aims and objectives of people who are seeking their own development (Sugden and Wilson, 2002; Branston et al., 2006c). Drawing upon Sugden and Wilson (2002), Branston et al. (2006b) contend that development indicators are often determined externally to an economy. The involvement of the private sector in economic development in developing countries is one of the aspects promoted in the agenda of the 'Washington Consensus', an economic development policy prescription dominated by international development organisations such as the International Monetary Fund (IMF) and the World Bank. Adopting such a concept for development tends to ignore the aims and objectives of those who live in the economy seeking their own development (Branston et al., 2006b). It can then be argued that there has been little choice left over the decisions, particularly for 'less-developed' countries, and that they have been obliged to employ policies for economic development. Indeed, these policy prescriptions might constrain the thinking and decision of localities and reflect the interests of the actors concerned (Sugden and Wilson, 2002).

The problem of applying the external prescriptions for developing strategic sectors involves that these prescriptions have ignored broader public interest concerns and the wider aims and objectives of socio-economic development (Branston et al., 2006b). The actual PPPs performance and the extent to which the development outcomes are in the public interest can be assessed in relation to development objectives that to be determined for any sector being reformed via PPPs. Applying the SCF in the context of PPPs can provide an analytical framework for addressing the public interest and a broader perspective in evaluating PPP success. This broader perspective stands out in the PPP

literature as it examines the changes in strategic decision-making processes in the sector being reformed and specifically on who makes the decisions and in the basis upon which these decisions are made. Given the fact that inequality of power sometimes presents in PPPs, a few actors who have power tend to pursue their own interests. Decision makers or these few actors from the government are more likely to make strategic decisions despite the resistance of those stakeholders who may directly and/or indirectly be affected by those decisions. The SCF suggests a democratic governance form where strategic decision-making processes allow diverse interest groups to participate. Therefore, applying the SCF helps to identify the implications of PPPs for the attainment of public interest, and suggests ways in which various stakeholders with interests can participate in the decision-making process. Therefore, adopting this framework provides an appropriate theoretical foundation for a governance-based PPP analysis. In the following two sub-sections, the focus of the SCF and relevant concepts are outlined.

2.4.1.1 Democratic Governance

The literature on SCF builds the argument of democracy and the public based on Dewey's theory, and the theory of firm. The SCF suggests that the preservation of the public interest can be ensured when it is clearly recognised that all interested parties affected by implementing policy and decisions must be included in the strategic decision-making process (Cowling and Sugden, 1998). Accordingly, democratic engagement offers an alternative approach that focuses on localities (Sugden and Wilson, 2002).

The democratic governance concept which is the focus of the SCF literature is to offer the potential to alleviate the strategic failure of concentration of decision-making power by exploring inclusive forms of governance. Since SCF is governance centric, it recognises the importance of the governance of key decisions to protect the public interest. In the present study, the term 'governance' refers to *'the processes and associated structures for identifying and making choices over strategy, therefore choices over the development path'* (Bailey et al., 2006, p. 558). The SCF focuses on power relations and interactions among actors, and it suggests democratic participation in the strategic decision-making process (Branston et al., 2006b). It is the strategic decisions that determine relationships with others (Branston et al., 2006a).

Indeed, there is now a growing debate on the governance of PPPs and whether it protects the public interest (Skelcher, 2010; Hedge and Greve, 2007, 2010). Since the previous studies have relied on a narrow perspective in evaluating PPP governance and how these projects might perform to attain outcomes in the public interest, the broader view should highlight that the continued advocacy of governments regarding PPP initiatives to pursue public infrastructure development raises the question about the extent to which a few key governmental actors act to preserve the public interest. The decision of implementing partnership initiatives for infrastructure development made with strategic decision-making power originates from key governmental actors. There is the marginalisation of people's interests in seeking their own development i.e. excluding local businesses (contractors) and interested groups from participation in PPPs that constitutes a substantial impact on the public interest that could be observed in the context of developing countries. Thus, an unequal development and global social marginalisation are visible (Siemiatycki, 2013). According to the World Bank report in 2011, 139 developing countries were aggressively inviting private sector participation in infrastructure projects (Chuo et al., 2012). This opens the door for enhancing the international norms that might be against the explicit intentions of participating state actors (Brinkerhoff and Brinkerhoff, 2011).

The SCF application allows the analysis of development of the sector being reformed via PPP and analyse the process and related structure for making the strategic decisions about PPPs and upon which base they are made. Drawing upon the SCF approach to economic and industry development, this study argues that making decisions about PPP projects to develop a particular sector or industry should be grounded in the aims and objectives of those who seek the sector's development and broadening governance process within the sector to allow those who have interest to have input into the sector strategy. In other words, the choice over the development of the sector through PPPs should recognise the democratically chosen objectives of the sector, drawing on the analysis by Branston et al. (2006c) and Bailey et al. (2006).

The present study suggests that embracing a democratic form of governance of the sector being reformed via PPP provides an opportunity to incorporate diverse actors and wider stakeholders aims and objectives in the development process and in turn to attain the outcomes in the public interest. Importantly, it provides a broader approach to evaluating PPP performance through inclusion of wider public aims and objectives in the analysis of

PPPs that would be significant for achieving improved development and efficient outcomes for the sector being reformed. Therefore, the choice over the development of any strategic sector has been given significance in the SCF literature because of its role in recognising inclusion of diverse actors and wider objectives of stakeholders. In the following the strategic choice concept is discussed.

2.4.1.2 Strategic Choice

The SCF is built on the assumption that there are economic choices which can be influenced and altered (Bailey et al., 20006). Bailey et al. go on to discuss that there are *'actual and potential scope both for people to influence the set of choices available, and for them to exercise choice'* (p. 557). The SCF, however, focuses on choice over strategy in the corporations and organisations in industries because of significance of strategy in production activity. It implies that the scope of the choices available for the actors in the production processes or systems might be constrained for some interested parties. This would result in a choice based on the narrower interests of an exclusive group (Branston et al., 2006b). Thus, the democratic approach gives importance to the choice of industry's objectives (Branston et al., 2006c). According to Branston et al. (2006b), there is a need for democratically chosen objectives for development of a particular sector. Referring back to Zeitlin (1974) Branston et al. (2006b) believe that to choose the objectives of development is by definition means to determine the strategy of development. Therefore, the determinant of strategy is the choice.

It can be argued that there are different views as to which strategy to choose (Branston et al. 2006b). The decision makers, for example, would have different choices over the objectives of development that of the people looking their own development. Thus, the implications of these differences in preferences matter as who makes the strategic decisions for developing a particular sector and upon which basis they are made (Branston et al., 2006b). This current study argues that the decision makers of PPP would choose different strategies and these different strategies leave different impacts for the development of the sector. For example, the key decision makers in PPP projects would not view better efficiency of the sector and supply of the service the same way the people who receive the service view it themselves. Each group of people prefers the objectives differently. Therefore, by identifying what strategic objectives are chosen and who makes strategic

decisions different impacts of PPPs can be determined and understood. If only a few actors dominate the strategic decision making, the state of strategic failure would be present. In the following, the strategic failure concept is discussed.

2.4.1.3 Strategic Failure

The governance of production with such presence of a few actors to take the strategic decisions results in 'strategic failure'. It is '*a failure to determine strategic direction of production, and thereby to determine the evolution of an economy, in the broader interest-in the interest of the community at large*' (Cowling and Sugden, 1999, p. 361). The concentration of decision-making power in the hands of a few actors implies that strategic decisions are not taken in the interests of the wider public and failure to govern production in the public interest (Bailey et al., 2006).

The exclusive nature of development is often instigated by an imbalance in power or influence in which a dominant role is given to self-interested elites by virtue of resources, connection, organisation, etc. that dilute the democratic representation of society (Farazmand, 2012). As a complex interaction process exists in PPPs, the inclusion of various actors such as private actors, social alignments and citizens should not be neglected since each has important power and resources to obstruct policy interventions (Klijn, 2008). Unlike in large corporations or businesses, it is not only a few elites but also a few governmental actors that take strategic decisions in PPPs. The concept of the strategic failure that is hypothesised from the result of exclusive governance can be applied to PPPs for the development of strategic sectors in any economy. As there is uncertainty that PPPs would deliver long-term outcomes in the public interest, their democratic governance is of focal concern.

While there are growing studies highlighting the importance of the democratic governance of PPP projects, the concerns raised in the PPP literature point to solving the issues of such as accountability, transparency (e.g. Hodge and Greve, 2007), and public participation (e.g. Ng et al., 2010). These key aspects for success within the democratic governance of PPPs are essential. This is to allow all interested parties to have input into the formation of the PPP strategy and avoid strategic failure in order to achieve efficient outcomes for the electricity sector.

2.4.1.4 Practice of Contracting

The SCF identifies that in situations where strategic choices do not reflect the different interests, inefficient development outcomes for those within localities can be observed (Branston et al. 2006b). While the SCF recognises the impacts of reform plans on efficiency, it has not considered the impact on dynamic efficiency. This study sees that 'the practice of contracting' should be integrated into the basic ideas of the SCF to examine impacts on dynamic efficiency. The concept of 'practice of contracting' therefore can be applied to operational PPPs in order to evaluate dynamic efficiency (Reeves, 2008; van Den Hurk and Verhoest, 2016).

The effort of obtaining the best from PPPs faces the challenge of the 'practice of contracting' (Reeves, 2008; van Den Hurk and Verhoest, 2016). Drawing upon the aspects of socio-legal theory and going beyond the transaction costs framework, which involves the costs that arise in organising a competitive tendering process, writing, monitoring and enforcing contracts, Reeves (2008) suggests a wider perspective to understand dynamic economic efficiency. As believed by Reeves, a pure economic view applied to PPP investigation has limitations. Therefore, supplementing the transaction cost framework by the aspects of socio-legal theory, Reeves provides an approach that facilitates the understanding of how economic activity is organised and of analysing aspects of contracting practice such as quality of contractual relations under PPPs (after the contract is signed).

Contracting in PPPs has raised the challenges associated with costs of aligning different interests of different actors in contracts and monitoring contractual relations and enforcing responsibilities in these long-term contracts for public service provision. As these PPP contracts last for long periods, there are several identified factors that would influence the quality of contracting procurement and dynamic efficiency such as asymmetric lock-in where one party is dependent on the other party in the partnership relationship (Lonsdale, 2005). Reeves (2008) also summarises the following factors:

1- Un-developed and unstable markets resulting in insufficient competition for contracts.
2- Over-emphasis on price and insufficient regard to quality at the stage of contract award.

3- Loss-leading behaviour and lack of contracting experience on the part of clients;
4- The nature of the pre-contractual power relations;
5- The relative commercial resources of the two parties to the transaction;
6- The relative importance of the transaction to the two parties and
7- The relative switching costs faced by the two parties to the transaction.

Nevertheless, the current study's analysis of the governance of PPPs recognises the importance of including the aspect of contracting within the SCF to understand the aspects of the practice of contracting in PPPs such as the quality of contractual exchange and influence on the dynamic efficiency.

2.4.2 The SCF Approach for Evaluating Performance from Stakeholders' Perspective

As this current study seeks to evaluate how PPP projects have performed to deliver outcomes in the public interest from the stakeholders' perspective, a framework for evaluating PPP performance should be identified. The scarcity of a stakeholder approach and unavailability of a robust performance evaluation of PPPs throughout their life cycle have made addressing this issue critical. The utilisation of SCF here can be useful.

The present study's evaluation of PPP performance is informed by the SCF. The SCF ideas on the structure of a firm, industry or economy's strategic decision making that a few elites dominate the process and whether the strategic objectives of development reflect diverse rather than the private interests can be useful to provide the basis for evaluating PPP performance. When the primary concern is the pursuit of private interests, the SCF asserts that the wider interest of the public is not served. Cowling and Sugden (1999) refer to this as 'strategic failure', the result of which is inefficient outcomes. The SCF also suggests that the development of an industry or sector should be rooted in the aims and objectives of the people living in a locality and seeking their own development (Sugden and Wilson, 2002; Branston et al., 2006c). Following Cowling and Sugden (1999) and the argument by Sugden and Wilson (2002) in economic development, Branston et al. (2006c) emphasis on the analysis of the role of any sector's development in terms of the development criteria and assessment of performance in relation to the development objectives of the sector has particular relevance to the evaluation of PPPs performance. PPPs have strategic importance and failure of these projects impacts significantly the outcomes of the sector under

development. Their performance then is of particular importance in terms of contributing to desirable outcomes for PPP stakeholders. A key implication of SCF is that the dominant actors, i.e. the public client and the private sector, might pursue their own objectives. Thus, SCF can usefully explain that the inefficient outcomes of development are the consequences of ignoring the aims and objectives of those who live in a locality (Branston et al., 2006c). Building upon the SCF and the extant PPP literature, this study proposes a stakeholder perspective framework to evaluate PPPs in relation to wider stakeholders' objectives for the electricity sector being reformed via PPPs.

The traditional view of PPP evaluation encompasses the common strategic objectives of efficiency, quality, VFM, and performance standards (Akintoye et al., 2003). These value elements should reflect the overall strategic plan and the mission objectives of the public client, the long-term development and payoff strategy of the private sector, and the requirements of quality public facilities and services of the general public (Yuan et al., 2009). This view has identified stakeholder groups of PPPs as the public client, the private sector, and the general public. It is extended in this proposed framework to include wider interest groups of the public directories, the private partners including project companies and EPC contractors, the public sector employees, the Environmental Board, consumers, residents living near power plants, the Investment Board, Provincial Councils, the Chamber of Commerce and Industry, and Labour Unions.

Each stakeholder has different objectives and retains different perceptions about the performance of PPP projects. For example, in the view of the public sector, a successful PPP project may be defined by the cost effectiveness of service provision, while in the view of the private sector it may mean secured profits (Liyanage and Villalba-Romero, 2015). Therefore, the measurement of success to evaluate PPP projects in terms of achieving performance objectives requires different types of indicators for each stakeholder group (Mladenovic et al., 2013). This necessitates several Key Performance Indicators (KPIs) to be developed for the analysis of PPP stakeholder objectives. This method follows Mladenovic et al. (2013) in evaluating the success of PPPs and uses the framework that adopts both traditional performance criteria and the SCF criteria that emphasise operational performance in terms of the way that the PPP process contributes to the efficient operation and effective management of the public provision service. This is done by first identifying

the objectives of PPPs and then evaluating them against the perceptions of PPP project stakeholders.

The following objectives have been used to build up the main themes and to develop KPIs for the performance analysis in relation to identified critical objectives. In Table 2.1, the developed performance criteria and KPIs are listed along the identified stakeholder groups.

a. Operational Efficiency in Service Provision

This theme highlights an expectation that a PPP project leads to efficiencies in public service development. It seems that efficiency is a primary objective in public service procurement (Mladenovic et al., 2013). The efficiency objective of the private sector is profitability secured in parallel to on time or earlier completion, acceptable quality of the project (Yuan et al., 2009), and appropriate risk allocation (Li et al., 2005a). As a dominant actor, the public sector seeks to achieve operational efficiencies through the utilisation of the private sector's managerial skills and technologies (Zhang, 2006), the quality of projects and improved quality service (Yuan et al., 2009), and timely solutions of operational problems (Osei-Kyei and Chan, 2017). In their evaluation of PPPs, end users who are directly or indirectly become involved in payments might perceive cost of service provision (Liyanage and Villalba-Romero, 2015). Therefore, the questions of performance in terms of pursuing efficiency objective centre on the benefits for wider community and public money spending (Jeffares et al., 2013). The choices made over the efficiency objective with the distinct preference of the public and private actors would imply different impacts on the outcomes. From the SCF perspective, improving the efficiency of the sector should take part in pursuing any democratically chosen objective of development.

PPP has the potential to enhance efficiency and reduce the costs of the public sector by enhancing competition for a project or a market (Estache and Saussier, 2014). This also involves a high level of cooperation and trust (Reeves, 2008). However, political interference and corruption affect the procurement process. Therefore, what is important for achieving operational efficiency are stronger private management performance and enhanced competition (Smith and Trebilock, 2001), lower degree of political interferences (Boycko et al., 1996 in Estache and Saussier, 2014), risk transfer (Sarmento and Renneboog, 2014), and innovation solutions in design and management (Ismail and Haris,

2014). Van Den Hurk and Verhoest (2016) added to this list the implication of PPP contracts for opportunities for learning in the procurement process.

A key issue to indicate the efficiency of PPP projects is to know the extent to which a project meets a need (Estache and Saussier, 2014). Interruptions or less reliable service impose costs on users that would take a form of investment in alternative supplies i.e. electricity generators (Andres et al., 2008). Incompetence or collusion between PPP partners is often the reason for not matching target demand (Bel et al., 2014 in Estache and Saussier, 2014). Another reason identified is lack of scope or lack of clarity of project requirements by the public sector (Farquharson et al., 2011). There are also situations when price of the service is increased in order to cover costs of service provision (Andres et al., 2008). However, tariffs should be kept at an acceptable level for social and political reasons and less service price increase should be imposed on consumers (Ke et al., 2010).

For operational efficiency, the analysis uses the performance criteria of:

1- Level of service efficiency (cost per unit of service provision) and price of service provision.
2- Reliable and quality service delivery (Robinson and Scott, 2009; Trebilcock and Rosenstock, 2015)
3- Timely solution of reported operational problems (Partnership UK, 2006 in Osei-Kyei and Chan, 2017)
4- Risk transfer (Reeves, 2013). This is to look at the extent of effective risk management and indicate implications of risks for the cost and quality of the service.
5- Technological capability and innovative solutions.
6- Quality of procurement method and practice of ex post contracting (Reeves, 2008).

b. Accessibility and Service Coverage

Beside improvement of service quality as a major concern for every stakeholder (Yuan et al., 2009; Liu et al., 2015), one of the main impacts of PPPs for service provision is their role in improving access (Trebilcock and Rosenstock, 2015). Accessibility to the service is the primary objective of the general public (Mladenovic et al., 2013). This theme denotes

the ability to expand the service and improve access to the service delivered by PPPs such as the opportunity to increase the number of that electricity is available for and target underserved segments such as connections to low income areas (Andre et al., 2008). Most importantly, the coverage of service to areas affected by the PPP projects such as isolated near power plant communities are the important groups to be considered. This theme is measured in terms of network expansion percentage and number of consumers.

c. Benefits for the Public: Local Development and Job Opportunities

PPPs are thought to enhance local economic development and provide greater employment opportunities (Li et al., 2005a). Ignoring the local economic development objectives of the wider public may result in a great impact. The wider development objective to include in the current performance analysis is the extent of enhanced employment opportunities and community development. Pursuing the interest of decision makers often causes issues of employment, as the SCF highlights (Cowling and Sugden, 1998). Even though PPP practitioners perceive that employment is not affected by the method of procurement (Cheung et al., 2010), it is unlikely to bring more employment opportunities (Li et al., 2005a). The theme of benefits for the public is used as an indicator to address the impact of PPP move on employment reduction/ increase and the extent that PPP is effective in providing job opportunities for locals.

d. Environmental Impact Consideration

A clean environment and less health and safety impacts on people's life is a wider public aim, meaning that the issue of environmental impact is a critical factor for success of PPP projects (Zhang, 2005). Because poor attention to environmental issues causes serious risks, appropriate environmental health and safety control is required for the effective management of operational PPPs (Liu et al., 2015). Osei-Kyei and Chan (2017) argue that to control negative effects of operational activities on the health of the general public and users, proper health and safety measures need to be in place. This indicator is incorporated into the current performance evaluation because of the significant concern the local communities attach to the environmental impact of PPP projects. Therefore, to assess the extent to which PPP parties deal with environmental concerns raised by PPP activities and reduce health and safety issues, this indicator is considered to meet the local's goal of the protection of the environment.

Table 2.1 Performance Measures and Developed KPIs from the Perspective of Stakeholders

Stakeholders	Organisations/individuals	Objectives	Performance Criteria	KPIs
State officials	Ministry of Electricity (MOE) Ministry of Industry Members of the Investment Board	More efficient Service provision	Quality of service Timely completion and operation solutions Management of allocated risks Cost per unit of electricity generated	The extent to which service quality has improved (No. of Service interruptions in hour) (Andres et al., 2008). On time commissioning indicator (Doloi, 2012b) and duration has been taken to solve operational problems. The extent of effective risk management through indicating the perceptions of risks inherent in the operation phase and how they are dealt with. Implication of allocated risks for operation cost and quality: amount of availability payment (PPA) and capacity generation (no. of megawatts of generated electricity annually) Supplied electricity payments, Selling tariff structure Service price Degree of competition Innovation solutions brought
		Service Coverage	Service expansion	Network expansion Number of consumers with access to national grid
	Environmental Board	Environmental Impact Consideration	Consideration of Environmental issues	The extent to which attention is given to environmental issues (Less pollution control and safety issue)
The general public	Consumers Nearby power plants residents	Accessibility Benefits for the Public: local job opportunity Environmental Impact Consideration	Improvement in access of the service Job opportunities Consideration of Environmental issues	Number of available hours of electricity The extent of enhanced employment opportunities and community development The extent to which attention is given to environmental issues (Less pollution control and safety issue)
Private Sector	Project companies EPC contractors Investment Banks Interested companies	Operational efficiency	Profitability secured On time or earlier completion Acceptable quality of the project Risk allocation	The extent to which operational problems is minimised Delays or time overruns The extent of meeting performance specifications The extent to which risks are effectively allocated in construction and operation phase and how they are dealt with when occur

Table 2.1 Performance Measures and Developed KPIs from the Perspective of Stakeholders (continued)

Stakeholders	Organisations/individuals	Objectives	Performance Criteria	KPIs
Stakeholder representative groups	High representative of labour Unions High representative of Industry Chambers Mukhtars Mayors Members of Provincial Councils	Cost efficient Service provision	Quality of service	Reliable service quality
			Management of allocated Risks	The extent to which inherent risks are perceived appropriately managed. (Implication of allocated risks on operation cost and quality)
			Cost efficiency of the service	The extent to which efficiency electricity service provision is perceived to be improved
		Benefits for the Public	Job opportunities	The extent to which PPP enhanced employment opportunities and community development
Other interested groups	Interested private companies	Bringing efficiency	Better quality Service Provision	Reliable service quality
			Risk allocation	The extent to which inherent risks are perceived appropriately managed

2.4.3 The SCF Approach for Evaluating Governance Structures from Stakeholder Perspective

This study sees that it is also important to focus on the underlying reasons that lead to emerging governance issues and identify the implications and concerns that the evolved governance structures of PPPs have for the public interest and democratic governance. The key argument in the PPP literature that highlighted the governance issues relate the reasons the emergence of these issues to the proper design of governance mechanisms or governance structures which are considered as ways to protect the public interest (Skelcher, 2010).

To seek the answer of the question of how the PPP projects are governed and what implications do governance structures have on the public interest, the thesis tries to identify the wider issues that are considered to be the core concerns of democratic governance which might cause the PPP projects and development processes to fail to operate in the public interest. As discussed by Reeves (2013), there are many wider issues (e.g. legitimacy of government actions that requires accountability mechanisms) which related to the delegation of authority to the private sector in PPPs that must be considered in the context of governance evaluation. Drawing on Reeves (2013), the current study focuses on identifying the wider issues of the governance structure of PPP projects and of the electricity industry in the context of KRI.

The SCF provides a broader approach to assessing the governance structures of PPP projects and the development process of the sector subjected to PPP implementation. In the light of the SCF ideas, the thesis analyses the structure of strategic decision-making in order to identify who are at the centre of the power and the wider implications for the public interest. The solution provided by the SCF for the governance issues and the potential strategic failure is to widen participation in the strategic decision-making process (Branston et al., 2006b). This is further detailed in section 2.4.4.

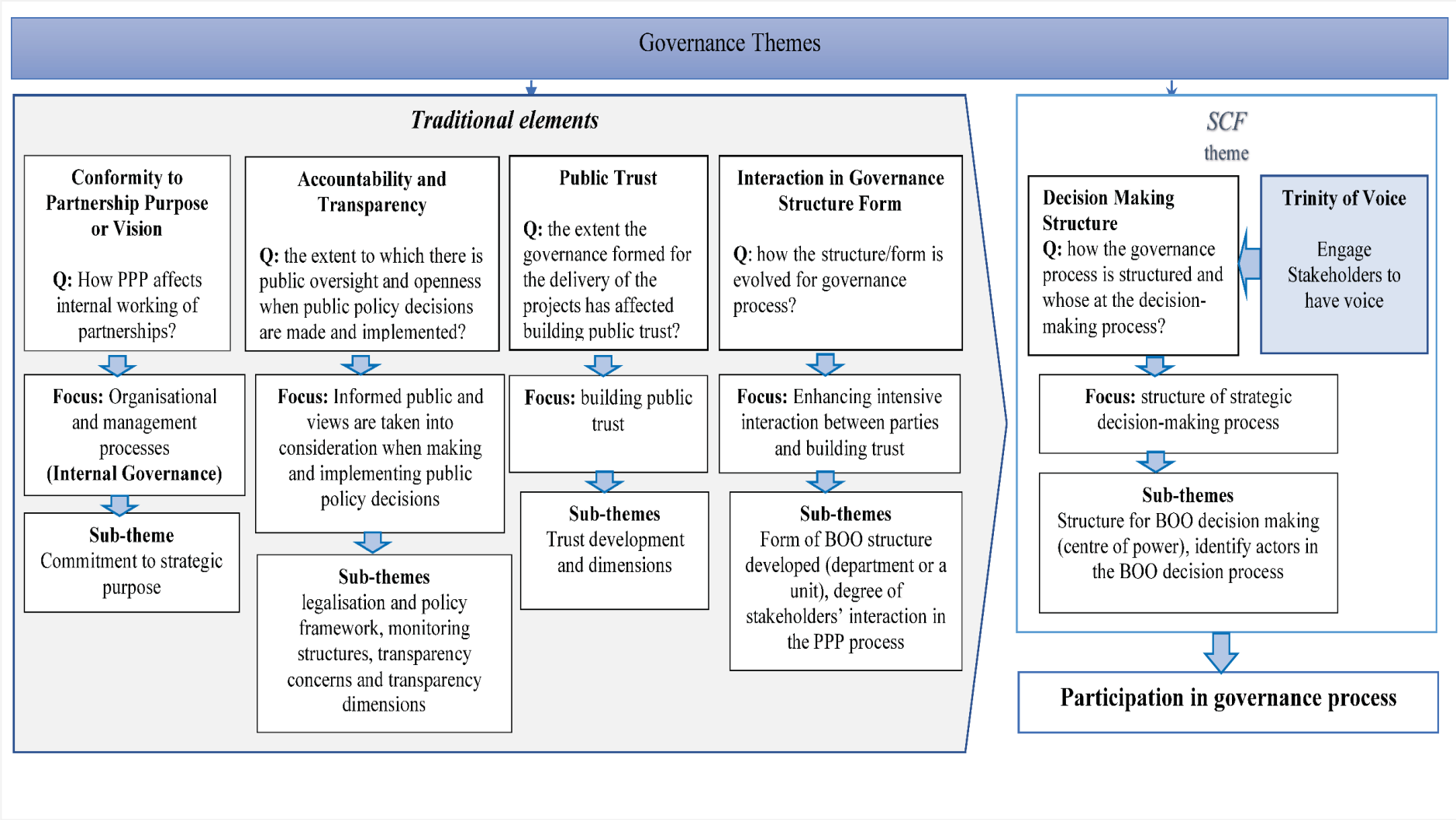
This section develops a stakeholder's perspective framework in order to explore the extent of the democratic governance of PPP projects in the electricity generation sector and identify the evaluation themes and the key concepts especially where they are considered as the core concerns for analysing the governance structure of the PPP experience.

The new framework proposed below applies the SCF and focuses on the governance structure both in terms of the ways in which the strategic decision-making structure of the industry is formed and other concerns around the implications of this structure for PPP projects and the electricity sector governance generally. An essential consideration while analysing governance according to the SCF is the change in governance, which is determined by the ability to take strategic choices (Branston et al., 2006b). The SCF emphasises the importance of changes in strategic decision making in the sector being reformed. Therefore, the new developed framework herein, along with the SCF focus relies on other governance dimensions that concern the key questions of governance raised in the PPP literature. The analysis considers concerns of governance structures such as the internal structure that leads to problems in the efficacy of partnership forms (Goldstein and Mele, 2016); the governance form applied in implementing PPPs which led to the interferences of political, multi actor, and technical complexities (Hurk and Verhoest, 2015); the development of stakeholders relations and sufficient interaction in the governance processes (Koppenjan, 2005; Schepper et al., 2014); building trust (Tsang et al., 2009), transparency and accountability (Forrer et al., 2010; Mukhopadhyay, 2016; Hodge and Greve, 2010; Greve and Hodge, 2011). The involvement of the private sector in infrastructures/service provision might threaten and would influence the transparency and accountability concerns leading to issues associated with more negotiations and governance structures (Greve and Hodge, 2011). These governance concerns and the SCF approach to democratic governance emphasise the inclusion of stakeholders and their participation in the governance process. Since the theoretical position of SCF is derived from the hierarchical structure of decision-making, a critical matter concerns the public's ability to raise their voice in a meaningful way in the strategic decision-making process.

The developed framework includes the identified key themes that will be used to evaluate the perceptions of PPP project stakeholders. Figure 2.2 presents the conceptual framework that will be used to analyse the governance structure of PPP projects and the electricity industry. It shows the main themes of the decision-making structure and other traditional governance dimensions identified for the analysis of the structure formed for the governance of PPP projects and the electricity industry. These themes include: interactions and trust building; accountability and transparency; conformity to partnership purpose; and public trust. Each of these themes is detailed below. Under each theme, the key question,

focus and key constructs are presented. Along Figure 2.2, the concept of TOV is integrated into the analytical framework of stakeholder participation in the governance process (which is further discussed in Section 2.4.4.2).

Figure 2.2 A Developed Framework for Analysing Governance Structure of PPP Projects and the Electricity Industry



Traditionally, the PPP literature has incorporated different theories from different fields of economics, political science, public administration, and stakeholder management in their analyses of the governance of PPPs and the reasons why democratic governance matters in PPPs. Certain PPP scholars have identified the stakeholder groups of PPPs as the public client and the directly involved companies from the private sector. In the current conceptual framework, the stakeholder groups are extended to include the wider interest groups of public directories, private partners including project companies and EPC contractors, employees from the public sector, the Environmental Board, consumers, residents nearby power plants, the Investment Board, Provincial Councils, Labour Unions, and investment banks. The subsections below highlight the dimensions/constructs for analysing the governance structure based on the democratic governance perspective in addition to the democratisation of the governance process. The findings of this chapter are organised around the themes within this framework.

2.4.3.1 The Strategic Decision-Making Structure

This theme defines the structure evolved for decision-making for BOO arrangements. The broader concern highlights the issue of people affected by the decisions and the separation of policy (or strategy) decision making from those implementing it when designing PPP (Fischbacher and Beaumont, 2003). For example, Landow and Ebdon (2012) investigated a PPP case and found that in the project, only elites from the private sector and public officials were included in the planning phase of PPP decision and the control over the facility was maintained by a board of membership. This PPP decision structure would lead to the lack of interaction and to the dominance of elites (who exert power) in making strategic decisions. Fischbacher and Beaumont (2003), drawing on a case of PFI in the UK, stated that such structural characteristics tend to further separate the design and the implementation of strategy during PFI projects, implying that PPPs can further contribute to this separation. The issue of the dominance of a few elites in the structure of strategic decision-making in PPPs can be fully explained by the SCF approach, during which a theme is identified to indicate how the strategic decision process of BOO is structured and who is in the decision-making centre. To prevent elites pursuing their own interests, the SCF suggests that a democratic governance for development offers an opportunity to serve the public interest. For this reason, interested actors must be given opportunities to

participate, exercise their Hirschmanian voice and influence strategic decisions in order for the governance to be in the public interest (Branston et al. 2006b; see Section 6.2.2).

2.4.3.2 Sufficient Interactions/Relationships Development in Governing Structure

The essential aspects that have been paid little attention when establishing PPPs are: the organisational relationships to be developed within the PPP structure; the decision-making; and the required actions to govern these arrangements (Wilson et al., 2010). Therefore, this theme looks at the structure/form that has evolved for the governance of the BOO implementation process and how the decision-making structure reduces the problems of building relationships and embedding in the governance process. When the private and public sectors collaborate to provide public infrastructure and services; stable relationships and continuing interactions between the sectors are required with the responsibility for sharing the results (Ysa, 2007). Ysa further argues that the partners depend on developing multi-organisational and multi-sector governing structures to sustain their collaboration (Ysa, 2007). Then, the remaining questions are related to how the structure for PPP processes is formed and to the development of stakeholders' relations (Siering and Svensson, 2012).

Several scholars have investigated the relationship between the public and private parties that shape the PPP process (i.e. internal stakeholder's interaction). Koppenjan (2005), for instance, emphasised the importance of interaction or sufficient embedding in decision-making, precisely because it enhances a common understanding and the development of trust between the public and the private sectors. Koppenjan explains that if insufficient embedding is evident in the PPP structure, this might cause the failure of goal interweaving; of the creation of support; and the interaction of parties.

According to Ysa (2007), the structures (types) of governance forms adopted by PPPs have significant consequences in terms of initiative, incentives, objectives met, the way relationships develop, government expectations, competition, legal status, and accountability. Wilson et al. (2010) state that the PPP model might have different structures such as the use of existing departments or agencies to deliver PPP projects, the establishing of a specialist PPP sub-unit within existing departments or agencies, or the creation of a new authority via legislation. Governments might apply one of these structures to deliver

a PPP project. To explore the structure of the BOO governance, Wilson et al.'s (2010) classification of structure types is relied on for the current KRI case analysis.

The focus on the development of relations with stakeholders and on sufficient interaction within the working structure formed for BOO implementation is extended to include relations with wider stakeholders. Schepper et al. (2014) highlighted the importance of including a steering group to manage stakeholder's identification and of the management of relations in the governance structure of PPPs. This might mitigate problems of trust in focal organisations to achieve encouraging, embedding or interaction of PPP actors (Koppenjan, 2005).

2.4.3.3 Transparency and Accountability

These themes build on the questions of the extent to which public control and oversight are allowed, and of the degree of openness in public policy decision-making and implementation to keep the public informed. In the PPPs debate, questions of accountability and transparency are critical. As Skelcher (2010) states, PPPs *'introduce the problem of the 'democratic deficit', which refers to the shortfall in the accountability arrangements of a non-elected public body with reference to those applying in the elected sector.'* (p. 6). This asserts that those who exercise their power to decide on PPPs and use public resources for public service provision should be accountable to those on whose behalf they act. The concept of accountability is widened to include the role of responsibility, the expectation to control and the desire to encourage responsiveness (Greve and Hodge, 2011). In line with Forrer et al. (2010), accountability is required both ex ante and ex post of the PPP contract formation.

The transparency concept is related to accountability; transparency is an element in the accountability framework (e.g. Fombad, 2014). Transparency can be defined as the degree to which the public sector enables public scrutiny (Mukhopadhyay, 2016). There is concern that PPPs might undermine accountability and transparency (e.g. Willem and Dooren, 2011; Reeves, 2011; Landow and Ebdon, 2012; Reeves, 2013). For example, Fombad (2014) identified three accountability concerns that emerged in PPPs in South Africa, including the complexity of the legalisation and policies; transparency; and the monitoring of PPPs. The different laws and policies that existed for governing PPPs in this context

have led to several challenges of legalisation and policies which have resulted in the culture of rule bending, the tendency to use corrupt means for avoiding these rules, and not protecting the legitimate interest of stakeholders in the PPP implementation. The other transparency concerns were the procurement irregularities of policy framework, non-disclosure and corruption.

Most pertinent studies focus on mechanisms for improving accountability in PPPs such as conducting VFM assessment by public authorities prior to PPP implementation (Reeves, 2011), clarifying accountability relations, monitoring structures, transparency, ethical standards, risk transfer and institutional reforms (Fombad, 2014), consultation and involvement of stakeholders (Reeves, 2013), and single-purpose organisational entities promoting PPPs as established in some developed countries (Hodge and Greve, 2007). Chen, Hubbard and Liao (2013) also highlighted the role of due process of state in terms of check and balances of planning, auditing and reviewing by the state machinery to be relied on for accountability when the public service provided by the private sector is directly paid by government.

In order to examine the accountability and transparency issues of partnership policy implementation within the structure through which the BOO projects are governed, the current framework draws on the constructs developed from the PPP literature on accountability, and adopts the four important dimensions identified by Nelson (2003) for the purpose of examining transparency. Nelson has identified the fullness of disclosure; the accessibility of documents; the timeliness of information availability; and the mechanisms available for recourse and influence to discuss transparency issues. Greve and Hodge (2011), focusing on the degree of openness and the development phases of the PPP process, have integrated Nelson's dimensions to further develop a model for transparency analysis. Greve and Hodge (2011) derived a typology from Heald (2006) who distinguished between 'event' versus 'process' transparency, transparency in retrospect versus transparency in real time, nominal versus effective transparency, and the timing of the introduction of transparency. Greve and Hodge (2011) have added 'institution' as the third category to 'event' and 'process' because of its relevancy to PPPs and the focus on contract institution. They have added 'institution' because of the main focus in PPPs that is related to what the contract as an institution is, and how it is interpreted in law. This model is used to provide the analysis of transparency in BOO governance structure. By combining transparency

dimensions identified by Nelson (2003) and Heald's (2006) event and process transparency, Table (2.2) below is proposed by Greve and Hodge (2011) which divides the PPP process into five phases and integrates transparency dimensions.

Table 2.2 Dimensions of Transparency and the Process of Private Partnerships

	Fullness of disclosure	**Accessibility of documents**	**Timeliness of information availability**	**Mechanisms available for recourse and influence**
Phase 1 Pre-contractual phase (design, finance)	*Example: Disclosure in the pre-contractual phase (process)*			
Phase 2 Contractual allocation and contractual agreement (decision)		*Example: Accessibility of the contract (event, institution)*		
Phase 3 Operational phase and forming an SPV (build, own, operate)		*Example: Accessibility to information on operating PPP company (process)*		
Phase 4 Judgment phase and evaluation of output and outcome			*Example: Timeliness of information of performance of PPP (event)*	
Phase 5 Decision on continuation or break (transfer)				*Example: Influence on future of PPP project after performance review (event)*

Source: Greve and Hodge (2011, p. 9)

2.4.3.4 Building Public Trust

This theme looks at the extent to which project stakeholders have built trust in BOO governance. Christina et al. (2016) demonstrated that much of the extant PPP literature focuses on investigating trust between internal members and thereby community trust in PPP projects has been ignored. Trust can be considered to be a critical element related to developing and defining relations between different groups in PPPs. It is important to collaboration in governance as well (Pope, 2004). It is therefore argued that for implementing any policy programme by states, trust is a critical factor (Tsang et al., 2009) as it is seen as a facilitator for democratic governance (Tylor, 2003 in Tsang et al., 2009).

With regard to investigating building public trust in PPPs, it is important to highlight concerns about risks associated with PPPs and perceptions of different behavioral responses by the key parties to manage them (Christina et al., 2016). Stakeholders hold

different risk perceptions that can explain the extent to which public trust has been built in PPPs. Christina et al. (2016) suggest furthermore that community trust requires policy makers to understand the public engagement strategies to be offered. Thus, the way mistrust is expressed in PPPs is related to the way stakeholders are treated (Schepper et al., 2014). It is then thought that alignment of external stakeholders in PPPs relies on developing inter-organisational trust (Roehrich et al., 2014). It is important to determine if the public trust has implications in relation to the governance of BOO and the sector as a whole.

2.4.3.5 Conformity to Partnership's Purpose (or Vision)

This theme explores the alignment of mutuality or cooperativeness of stakeholders into the governance system. Mutuality is referred to as a *'strong mutual commitment to partnership goals and objectives, and an assumption that these joint objectives are consistent and supportive of each partner organization's mission and objectives'* (Brinkerhoff, 2002, p. 22). This element is embedded within the rationality context that the partnership efforts would underpin for the management of cooperative practice. In general, in setting up partnership goals or visions, Goldstein and Mele (2016) state that compromise between different forms of rationality is required that guide the actions of the involved parties. However, rationality can take several forms according to Jessop (1998) who pointed to the importance of the examination of governance failure. The market or the private companies have a 'procedural rationality', which prioritises *'an endless economising pursuit of profit maximisation'* (Jessop, 1998, P. 35). In contrast, government takes the form of 'substantive rationality' that is more goal-oriented and prioritises '*effective pursuit of successive policy goals'* (Jessop, 1998, p. 35). According to Jessop (1998), PPPs can take a 'reflexive' form of rationality in which the keys of success include: ongoing commitment to dialogue; generating and exchanging more information, reducing opportunism through locking the governing partners into a range of inter-dependent decisions over a mixture of short, medium and long-term time horizons. Therefore, for a PPP to conform the collective goals of the project, there should be an ability to define and follow the collective purpose of partnerships (Goldstein and Mele, 2016). This theme then examines the perception of PPP project stakeholders regarding the commitment to strategic goals in PPP projects, and the way the cooperativeness is seen in the sector.

2.4.4 Widening Participation in Governance Process: Engagement of Stakeholders to have 'voice'

In light of the SCF, governance structures should be diffuse to include interests of all affected by strategic decisions if strategic failure is to be avoided. For this reason, interested actors must be given opportunities to participate and influence the strategic decision-making process. The implication of the SCF is that through widening participation the power of a few elites is diluted, and the democratisation of governance reduces the risk of strategic failure and promotes more desirable social outcomes (Branston et al., 2009).

The implication of the SCF analysis is to widen participation in strategic decision-making and governance process. However, this requires the identification of mechanisms for the participation process. The key mechanism through which to access decision-making processes in firms, governments, and non-governmental organisations is 'voice' (Branston and Wilson, 2006). Hirschman's (1970) concept of voice constitutes one of the means that dissatisfied customers or members of any group or organisation can use to articulate opinions to solve disputes when no choice of exit exists or when it is not desirable. According to Hirschman (1970), voice is a means to articulate interests to improve the situation, while exit refers to leaving the situation. Voice is seen to be more effective than exit in that it is direct and straightforward whereas exit is just the opposite of voice (Hirschman, 1970). Exit is a market mechanism that is impersonal and indirect (Hirschman 1970). In light of SCF, voice reflects democracy. Then, SCF draws from Hirschman (1970, p. 32) that *'a mixture of alert and inert citizens, or even an alternation of involvement and withdrawal, may actually serve democracy better than either total, permanent activism or total apathy'*. In line with Branston et al. (2006c), the essence of democracy is not mechanistic. Therefore, SCF incorporates voice and suggests that by widening participation in the decision-making process, voice can be used to articulate the interests to improve the situation (Branston et al., 2009). It is then at the centre of the analysis of strategic failure (Branston et al., 2006a).

The SCF indicates that the structure of a decision has a hierarchy form in which actors at the top take strategic decisions. This study sets out to explore the extent to which governance of PPPs allows interested stakeholders to participate in strategic decision-making and development processes through PPPs. According to Bayley and French (2010),

the public may be involved in any phases of the decision-making process, and their involvement in any phase may be to a differing level. In this study, the public is collectively referred to as the individuals and stakeholders that are affected by a decision, that have a strong interest in the outcomes of that decision, and that are capable of having an impact on a project. The indirect consequences of decisions on the public shape the public interest and the public interest is simply supposed to shape the interests of those in society with a direct or indirect interest in the issue (Dredge and Thomas, 2009).

It is suggested that the governance of any economy or activity should be inclusive and democratic in order to be in the public interest, and that the basis of democratic governance is the public (Branston et al., 2006a). It appears that democratic governance, where all interested parties can fully participate in strategic decision-making, can properly serve the public interest (Branston et al., 2006a; Branston et al., 2006b).

This study centres on participation in strategic decision making and development processes of the sector being reformed via PPP. In PPP projects, strategic decisions are taken by the government and business actors. It can be argued that public participation in strategic decisions related to PPP projects may result in outcomes in the public interest, informed by the SCF ideas. Then, the aim of this study is to indicate the level of stakeholder participation in strategic decisions and how participation can be influential.

The participation theme here explores the extent to which interested stakeholders are allowed to participate in strategic decision-making and development process. The economic reform through a market-based approach such as PPP must provide a basis for the inclusion and democratisation of decision-making in the development process. Following the argument of Branston et al. (2006c), securing democratic governance ensures the development of the sector according to the aims and objectives of the communities it serves. The implications of PPP governance regarding the key concerns of democratic governance also suggest the engagement of stakeholders to obtain positive outcomes (e.g. Greve and Hodge, 2010; Forrer et al., 2010; Nederhand and Klijn, 2017). However, the concern lies with the public's ability to affect a few actors' decisions in the governance of PPP projects and the development process and how 'voice' can be influential. As the gap in the SCF and PPP literature can be found in terms of the most effective ways of widening participation in PPP governance, this study raises an important

argument. The examination should consider two matters in relation to widening participation in the strategic decision-making process and to the ways in which interested actors can achieve effective participation.

First, an important matter is whether those who have an interest in strategic decision-making are able to participate in order to achieve their desired outcomes. Second, whether their participation will be influential. The key mechanism in accessing the decision-making process in firms, governments, and non-governmental organisations is through 'voice' (Branston and Wilson, 2006). In light of SCF, voice reflects democracy. The SCF, furthermore, draws from Hirschman's (1970) concept of 'voice' and suggests that, by widening participation in the decision-making process, voice can be used to articulate interests to improve a situation (Branston et al., 2009). The structure and processes for market-based reforms should recognise diverse interests in order to disallow special interests from dominating, as suggested by Branston et al. (2006c). For this reason, this theme considers the following two sub-themes.

2.4.4.1 Level of Participation in PPPs

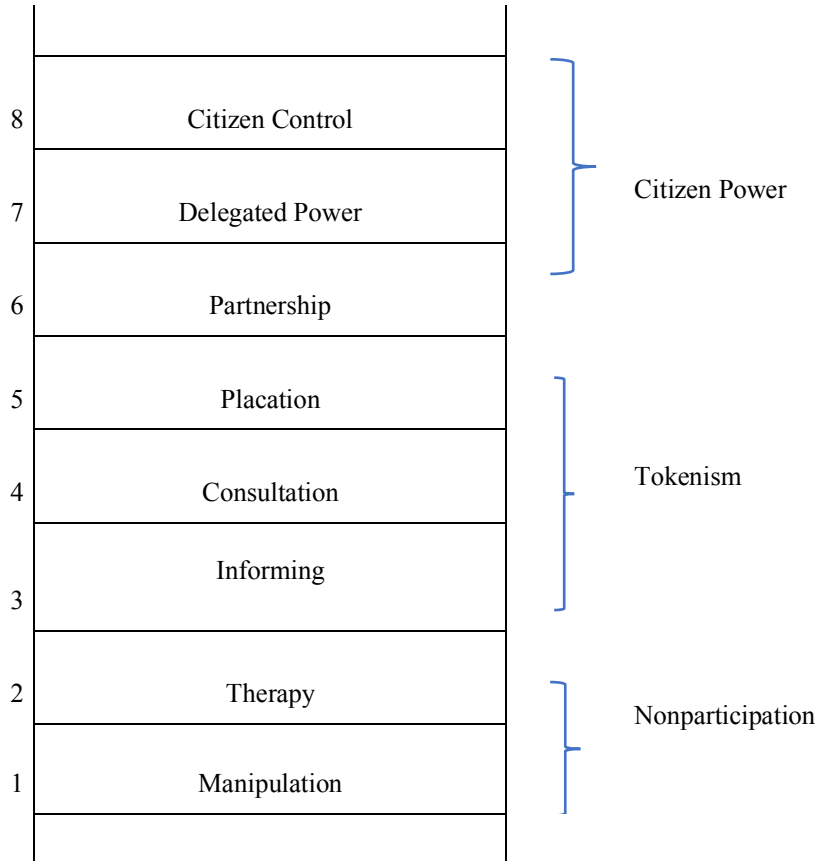
This section outlines the level of public participation and the framework to analyse and define the level of public participation in the strategic decision making of PPP projects. The extensive adoption of the participation term, which reflects the increasing interest to involve the public in decision-making in diverse areas, has resulted in the term taking different meanings. Two fundamental views on participation can be observed (Pretty, 1995). One strand sees participation as a means to increase efficiency deriving from the belief that if more people are involved, they agree with and support development. Another one views it as a right (Pretty, 1995). To Arnstein (1969), participation means the redistribution of power to enable those who have none or those who are presently excluded from the economic and political process. She differentiates between the 'empty ritual' of participation and having a 'real power' to affect the outcome of the process. To her, without redistribution of power, participation is an empty and frustrated process in which it allows power holders to claim that all sides are considered. Fuentes-Bautista (2012) sees participation as a basis to exercise power on behalf of citizenry. While for Cornwall (2008), participation means *'almost anything that involves people'* (p. 269). In Blair's (2000) study, the idea of participation reflects giving a meaningful role to citizens in local government

decisions that affect them. In light of these definitions, in this study, participation is referred to as the process of engaging stakeholders to raise their voice in strategic decision-making that affects them.

Participation has a role for reducing power asymmetry between partners (Torchia et al., 2013). The art of involving stakeholders contributes significantly to the success of plans and policies implemented and improve the quality of decisions (Jackson, 2001; Wesselink et al., 2011). The emphasis is on the increasing stakeholder's participation and involvement of affected people because this identifies alternative values and solutions, increases fairness in decision making, and leads to better decisions (Jackson, 2001). Specifically, sometimes participation is advanced in order to correct the deficiencies of authorised decision makers who show deficits such as a lack of knowledge, competence, public purpose, resources, or respect necessary to command compliance and cooperation (Fung, 2006). Therefore, the direct participation of stakeholders provides remedies for one or some of these deficiencies (Fung, 2006).

To indicate the level that leads to full involvement, Jackson (2001) argues that there is some confusion and ongoing conflict concerning most planners, decision makers, and the public about the appropriate level of involvement. However, to differentiate between levels and types of participation, it is better to look at typologies of participation to indicate the level of the participation is allowed. Arnstein's (1969) 'ladder of citizen participation' is a well-recognised source in which eight different levels of participation have been identified in the model. As illustrated in Figure 2.3, at the bottom of the ladder, 'therapy' and 'manipulation' rungs are used to describe 'non-participation' category. This shows that the real objective of participation is not to allow the public to participate in planning and conducted programs but to 'educate' or 'cure' participants through power holders (Jackson, 2001). She put 'citizen power' at the top, which includes citizen control, delegated power and partnership, and included 'tokenism', which includes informing, consultation, and placation in the middle rungs. Each describes a different level of empowerment. Based on her work, Jackson (2001) further developed it to include the involvement of the level of shared decision-making or consensus by incorporating the strategic components to choose the appropriate stage of stakeholder involvement.

Figure 2.3 Arnstein's Ladder of Citizen Participation

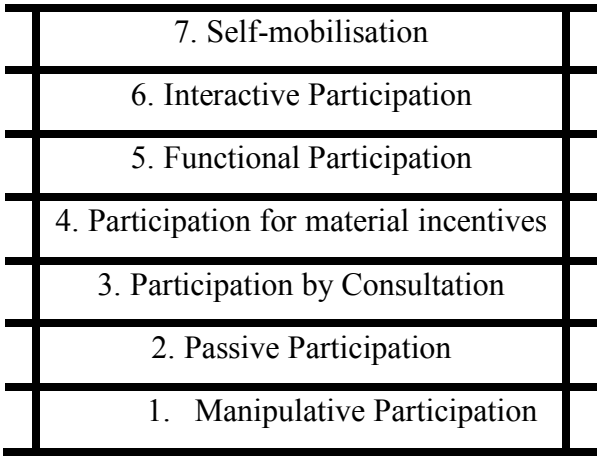


Source: Arnstein, S., 1969. A Ladder of Citizen Participation. *JAIP*, 35(4), pp. 216-224

The Pretty (1995) typology of participation focuses more on dimensions of participatory approach. His typology includes seven types of participation ranging from 'manipulative participation' to 'self-mobilisation'. In this typology, illustrated in Figure 2.4, 'manipulative participation' is purely pretence with tokenistic representatives of the people on official boards but these representatives are not elected and have no power. In 'passive participation', people are only told what has occurred or been decided upon, and the responses and opinions of people are not heard. The 'participation by consultation' captures the form of participation in which people are consulted and they answer questions but the process of consultation does not allow shared decisions and those in authority are under no obligations to take on board the views of the people. In 'participation by material incentives', people intend to contribute resources like labour with material incentives such as food and cash. In 'functional participation', people are involved in some shared decision-making but after major decisions have been made by the external agents. The purpose of participation is to meet project objectives and reduce costs. The sixth form of participation, 'interactive participation', allows people to participate in joint analysis, development of

action plans and formation of local institutions. In this form participation is seen as a right. People have controlling power over decisions, can determine how available resources are allocated, and gain a stake in maintaining institutions to oversee structures and processes. In 'self-mobilisation' people take the initiative independently of external institutions to change the systems and develop contacts with institutions for resources and technical advice they need but retain control over how resources are allocated. It can be said that both Pretty's and Arnstein's typologies define a shift of control from power holders to people and citizens. However, Pretty's typology points out more defined content for each category of participation and the typology better evokes upper forms of participation. It can also offer a good analytical framework for public participation in this study.

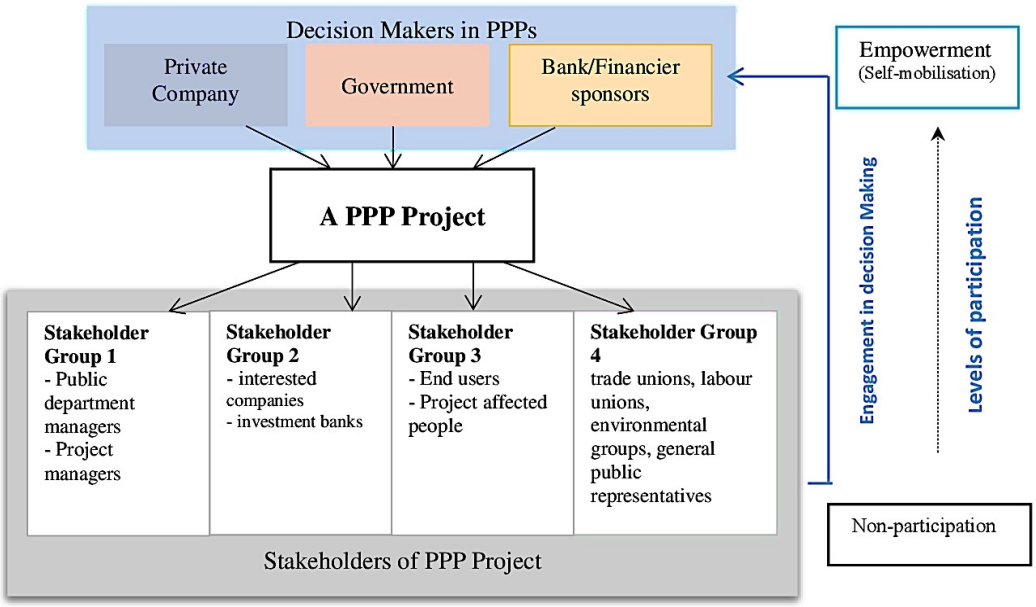
Figure 2.4 Pretty's Typology of Participation



Source: Pretty (1995, p.1252)

The structure of a PPP project's strategic decision-making and level of participation can be better illustrated in Figure 2.5. The concern here is the extent to which significant participation is allowed in strategic decision-making process and PPP projects decisions i.e. the participation of local firms, governmental departments, end users, project affected people and interest groups (trade and labour unions). In Figure 2.5, these stakeholder groups are highlighted along four groups (refer to Section 3.5.1 for more details).

Figure 2.5 A PPP Project Decision Structure and Participation Level



Therefore, this study seeks to answer the important question is whether those who have interest in strategic decision-making are allowed to participate to achieve their desired interests in PPPs. Another question is when participation is open to everyone, how can stakeholder participation in PPPs be influential. This is to identify how the effective public engagement could be evaluated in the PPP decision-making process. These concerns in widening the democratic participation is further addressed in this study. For the 'voice' to be effective, this study sees that facilitating the right to participate in the governance process must be complemented by the concept of Trinity of Voice (TOV), which is developed by Senecah (2004). The next sub-section details the TOV concept.

2.4.4.2 Trinity of Voice

Since participation in the strategic decision-making is the aim of the SCF, mechanisms that would widen participation and allow voice to be nurtured must be identified. Involving the public and allowing them to express their voice requires the knowledge of how participation could be achieved and what mechanisms should be in place to facilitate an effective and appropriate expression of voice (Andrews and Shah, 2002). Therefore, it is important that these mechanisms '*facilitate wider processes of learning to engage, learning to participate, and learning what it means to be part of democratic governance processes'* (Branston et al., 2006c, p. 54). In different contexts, several mechanisms are suggested to

widen participation in key industry decision-making at the industry level reforms. For example, the innovative role of pension funds in ownership and control and incorporating 'citizens' right' in the Mexican electricity sector (Branston et al., 2006c). Branston et al. believed that this right can be facilitated through conducting geographical and interest-based forums to discuss and deliberate industry related issues and activities. Specifically, for the UK's energy sector, Branston et al., (2016) proposed that the government create electricity supply and generation companies with inclusive governance structures. However, within the context of PPPs as there are wider stakeholders with different interests, each group might perceive different mechanisms for wider involvement in the strategic decisions in PPPs and the development process. This is to achieve more inclusive governance structures.

Furthermore, events and processes to provide the venue for interactions and mechanisms that can strengthen the participation of various actors as a right in the governance process might not be enough to ensure that public are able to express what they want to be heard (Popovic, 1993). This needs to encompass a proper design of an effective right to participation. It has been noted that the limitation of the SCF ideas in widening participation is that there is no basis for design of an effective process of participation provided. This gap applies to the PPP literature too. Therefore, for the 'voice' to be effective, facilitating the right to participate in the governance process must be complemented by the concept of Trinity of Voice (TOV) developed by Senecah (2004), which identifies how effective public engagement could be in the decision-making process. This concept suggests the importance of stakeholders' engagement and that meaningful participation requires the ability of stakeholders to obtain voice and legitimacy, and opportunities to influence powerful decision makers (Walker et al., 2006). The TOV concept comprises three elements: access; standing; and influence (Walker et al., 2006). 'Access' refers to the ability to express concerns and opinions about issues that affect stakeholders, and have access to a process in which their concerns can be expressed and heard. 'Standing' refers to the extent of valuing and taking into consideration the concerns that are expressed. 'Influence' depends on the degree of standing afforded to the public. It refers to the ability to affect decisions and ultimate outcomes. Therefore, this sub-theme firstly explores the effective mechanisms for widening participation from the perception of each group of stakeholders of the PPP projects and evaluates secondly how effective participation could be realised in the governance and decision-making processes.

The above governance elements have been identified from the PPP governance literature and integrated with the SCF to build the main themes and to develop the current conceptual framework, as summarised in Figure 2.2. The TOV concept is also incorporated into the SCF to develop effective public participation in the governance and decision-making processes. The framework is used for the analysis of the governance structure of PPP projects and the industry as a whole in relation to the perception of various stakeholders. The identified themes above are also used to guide the presentation of the results from interviews and focus groups with PPP project stakeholders.

2.5 Conclusions

The purpose of this review of literature is to understand PPPs and adopt a theoretical framework for analysing the governance of PPPs. Prior to introducing the theoretical framework, the vagueness of the concept and multiplicity of the definitions of PPPs led to a careful review of the literature in order to provide the most accurate definition of these arrangements for this study. In addition, the PPP literature review highlights the most critical challenges regarding the public interest that have been raised in PPP experiences to date. This is significant because the review includes many studies, which have different approaches and highlighted the aspects of PPPs that the public interest is not served at. However, the gap in the PPP literature, identified in the review of these studies, indicates that PPPs are often understood and discussed from the narrow perspective of markets. The review of studies also showed that there are several governance concerns have been raised in PPPs including transparency and accountability, and public participation. But few examples of the literature are based on the impacts of PPPs and that changes in governance and how this governance fits into a democratic context in examining the challenges on the public interest. A broader investigation, supported by a theoretical framework, is required to provide a better understating of how PPPs might deliver outcomes in the public interest and ensure a democratic process.

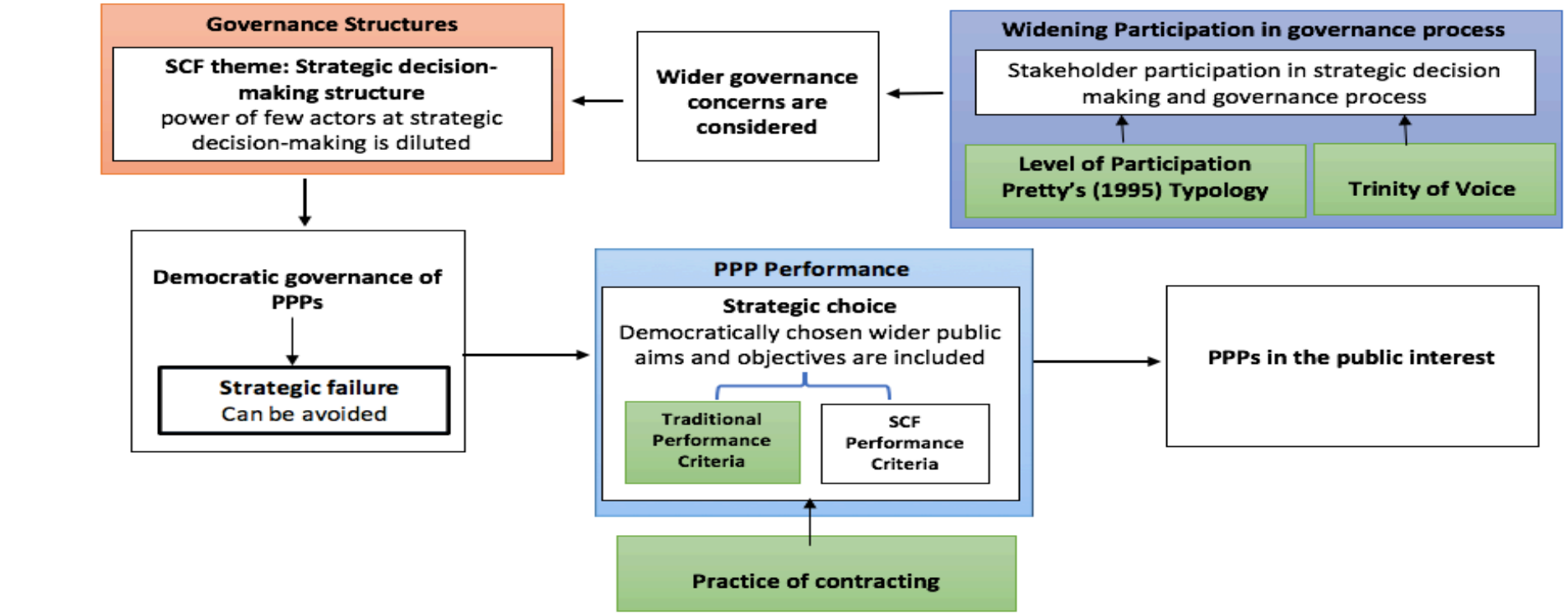
This study applies the SCF as a theoretical perspective that informs the analysis of the governance of PPPs and goes beyond the typical concerns around PPPs. The foregoing literature outlines the areas that define the impacts of PPPs on the strategic objectives of efficiency, quality, VFM, and performance standards. In this study the key ideas of the SCF

derived by Cowling and Sugden (1999), Sugden and Wilson (2002), Bailey et al. (2006), and Branston et al. (2006b) have been utilised which state that the impact of the reform of strategic sectors in any economy is determined by changes in governance which is defined in terms of strategic choices. The SCF emphasises the democratic governance of strategic decisions as being particularly important for achieving the public interest.

Four basic ideas within the SCF and PPP literature stand out as relevant to the current study. First, Branston et al. (2006c) propose the conceptualisation and definition of economic development in terms of democratically chosen objectives by incorporating all views of the people impacted by the development and analysis of the performance of the sector being reformed in relation to these objectives. In building performance as a primary construct in the governance analysis of PPPs, the review focused on the indicators ranging from operational efficiency indicators, job opportunities and local development, the consideration of environmental impacts, and service access that should reflect the wider stakeholder objectives of PPPs. Second, Reeves (2008) draws on the importance of 'practice of contracting' to investigate the impact of PPPs on dynamic efficiency. Third, Branston et al. (2006b) illustrates the impact of reform in terms of changes in strategic decision making or who makes strategic decisions and upon what they are made. Branston et al. propose governance structures that should be diffused and allow a wider participation of all affected stakeholders in strategic decision making and development processes. By widening the public participation, the SCF suggests that the public interest can be attained, and strategic failure be avoided. Forth, for the participation in the governance to be influential, Senecah (2004) concept of 'Trinity of Voice' suggests that three basic elements of 'access', 'standing', and 'influence' must be present in offering an effective way for public engagement. The overview of how these concepts have been linked is given in the conceptual framework illustrated by Figure 2.6 below.

The PPPs and SCF literature provide a rich foundation for developing the current study's conceptual framework. The foregoing literature reviewed highlights a need for a broader perspective to investigate PPP governance and enrich the PPP literature's approach to democratic governance. As Figure 2.6 illustrates, the SCF focus on democratic governance that is adopted and therefore it offers a wider perspective that could be considered in the study of the governance of PPPs and challenges in evaluating performance and governance structures.

Figure 2.6 Conceptual Framework for PPP governance analysis



The performance evaluation in this study is framed within a broader perspective and includes wider stakeholders and their objectives. This is because the strategic choices in the sector being reformed which might be chosen by a few people in the economy and based upon narrow objectives for development will lead to strategic failure (Bailey et al., 2006, Branston et al., 2006b, 2006c). Branston et al.'s (2006c) suggestion to analyse the actual role of any sector's development in terms of the development criteria and define objectives in the context of those criteria provides a basis for evaluating PPP performance. It informs the evaluation of performance because the development objectives of the sector can be used as the basis of the analysis. While the traditional performance approaches can be utilised as the wider stakeholders' objectives to assess the performance of PPP projects and the sector being reformed through a PPP from a wider stakeholder perspective, the measurement of success of PPP projects in terms of achieving performance objectives requires different types of indicators for each stakeholder group (Mladenovic et al., 2013).

Performance as a construct in response to the first research question of this study is best addressed by the method followed by Mladenovic et al. (2013) in evaluating the performance of PPPs and the use of the framework that adopts both traditional performance criteria and the SCF criteria that emphasise operational performance PPPs. The combination of the traditional PPP performance criteria with SCF criteria arises from the unavailability of frameworks that are based on wider strategic objectives for sector's development are of significant relevance to efficiency results in PPPs. However, they two have limitations as they have not fully considered impacts on dynamic efficiency. The integration of the concept of the 'practice of contracting' by Reeves (2008) can best explain the impacts of operational PPP projects on dynamic efficiency. The focus on democratic governance also shows that to avoid 'strategic failure', the democratic governance should incorporate the various interests of stakeholders and for the outcomes to be in the public interest (Branston et al., 2006b).

Whereas the SCF provides the theme of strategic decision-making power in the governance structure that would allow for ignoring aims and objectives of the people affected by strategic decisions and impact on desirable social outcomes (Branston et al., 2009), the SCF only identifies the implications and concerns that the evolved or associated governance structure for identifying and making strategic choices have for the public interest and democratic governance. The combination of the SCF concern with the PPP

literature outlines the wider issues that are considered to be the core concerns of democratic governance that might cause the PPP projects and development processes to fail to operate in the public interest (refer to Figure 2.2). The SCF provides a broader approach to assessing the governance structures of PPP projects and of the development process of the sector subjected to PPP implementation. Bailey et al. (2006) and Branston et al. (2006b, 2006c) propose the analysis of the structure of strategic decision-making in order to identify who are at the centre of the power and the wider implications for the public interest.

The last focus of the SCF highlights widening participation and inclusive governance structures as potential solutions for the governance issues and strategic failure. Branston et al. (2006b) propose that participation in the strategic decision-making process that facilitate democracy and inclusion. The conceptual framework developed in Figure 2.6 shows that the analysis of governance structures incorporates several governance dimensions that concern the key questions of democratic governance raised in the PPP literature (such as: transparency and accountability, public trust, developing stakeholder relationship, conformance to partnership vision) along with the SCF focus on the structure of strategic decision making. Although it has not been identified to what extent the governance structures of strategic decision making allow diverse and interested stakeholders' participation in decision making and development process, the level of the participation of interested actors, and their involvement in the strategic decision-making and development processes can be best explored by applying Pretty's (1995) typology. It can be suggested that the SCF has not comprehensively addressed the effective ways for the 'voice' to be influential. For this reason, the present study incorporates the concept of 'Trinity of Voice' by Senecah (2004) to examine how stakeholders' engagement in the strategic decision-making process can be effective and how 'voice' to be influential.

The combination of these constructs provides a representative framework both for governance analysis in this study and for the broad themes that were used as the semi-structured interviews and focus group guides (see appendix A and B). Prior to presenting the analysis of the performance, governance structures and to exploring widening participation in PPP governance in the electricity sector of the KRI, the following chapter introduces the research methodology. The methodology chapter addresses the research design and provide details of the methods both of data collection and the research process

for analysing the governance of PPPs according to the themes within the conceptual framework of the study.

Chapter Three

Methodology

3.1 Introduction

This chapter outlines the research design applied to study the governance of PPP projects within the analytical framework of the study informed by the Strategic Choice Framework (SCF) (see Chapter Two). The chapter highlights furthermore the philosophical domain underpinning the study's assumptions and goes on to discuss the positivist research paradigm employed to explore PPP governance. The adopted philosophical positions are explained according to the study's perspective of PPP projects and the analysis of the development process. Finally, the chapter provides the details of the research design to obtain relevant data in addressing effectively the research questions of the current study.

In its analysis of the governance of PPP projects in relation to the type of PPP adopted, this study has employed a case study research strategy. The examination of the governance of PPP projects focuses on the performance of these projects in meeting the objectives of projects stakeholders throughout the main service delivery phasees. In addition, the governance structures of PPP projects will be examined, and the wider governance issues raised in the governance structures and the implications of the PPP decision on the public interest will be identified. Guided by the SCF and the PPP literature, this study provides a broad perspective for analysing the PPP experience. The study employs a qualitative study approach, and its purpose as well as the rational for adopting a case study design will be explained in detail in this chapter. The governance of Build-Own-Operate (BOO), the type of PPP adopted, and projects in the electricity sector of the Kurdistan Region of Iraq (KRI) are identified as the case study. Finally, the chapter introduces the data collection technique, the selection of participants and the ways in which the data has been analysed, and it also highlights the researcher's ethical considerations.

3.2 Research Philosophy

The decision to choose a qualitative research approach in this study has followed from the adopted philosophical approach. The philosophical approach includes assumptions that relate to the way in which a researcher views the world (Saunders et al., 2009). A system of philosophical assumptions that reflects the choice of a research approach include:

ontology, epistemology, axiology, and methodology (Guba and Lincoln, 1994; Saunders et al., 2009). These assumptions are concerned with the nature of reality (ontology), the nature and form of knowledge (epistemology), the role of value in the research project (axiology), the choice of method while undertaking the research (methodology) (Maxwell, 2009; Saunders et al., 2009; Creswell, 2007; Scotland, 2012). The researcher chooses her/his philosophical position at each of these assumptions and the choice has practical implications for the design and conduct of the research (Creswell, 2007). The philosophical assumptions are brought together to inform a research paradigm, which is a '*basic belief system of world view that guides the investigation'* (Guba and Lincoln, 1994, p. 105). It is an underlying basis of conducting an investigation (Krauss, 2005). Many scholars have offered various classifications and categorisations of the different paradigms in relation to quantitative and qualitative research approaches. The philosophical positions such as positivism, constructionism, realism and pragmatism are examples of research paradigms, each holding different ideas about reality and how knowledge about it can be obtained (Maxwell, 2009).

The current research is positioned within a positivist paradigm based on the philosophical assumptions the researcher has about the study of PPPs. Prior to highlighting these assumptions, the researcher's positivist stance to research and seek answers to the research questions will be elaborated based on the basic set of beliefs that the researcher has about PPPs.

PPP research has been based on the belief that delivering many public infrastructures and services require the involvement of the private sector, and that the public interest can be served in PPPs when the public policy objectives set by governments have been met (Hodge and Greve, 2007 and 2010). The relevant body of knowledge, relating to the stewardship of governments and the public sector to be kept in charge of important domain decisions in PPPs (e.g. Bunch, 2012; Ortiz and Buxbaum, 2008), is clearly incorporated into the assertion towards this end. The unconnected knowledge in parallel to this is the change in the structure and mechanism of governance by which the infrastructure sectors are now governed and the extent to which this governance fits into a democratic context in determining the impacts of PPPs on the public interest (e.g. Hodge and Greve, 2010; Skelcher, 2010). The current study is therefore designed to provide a broader stakeholder approach by applying a priori theory that bridges this body of knowledge on the basis that

democratic governance form of PPPs can secure the public interest. Based on the three research questions outlined in the introduction chapter, identifying measures and elements for the PPP phenomena was required. This makes positivism an appropriate paradigm as the research questions call for measurements which make large data collection and analysis easier and test a priori theory.

Positivism asserts working with the observable reality of any phenomenon (Saunders et al., 2009). The preliminary research assumptions underpinning the current research of analysing PPPs view PPPs as a public policy tool that is encouraged and positioned in the strategic sectors of economy by many governments and suggest that it is impossible of the governance of PPPs to be in the public interest if a democratic governance form of PPPs has not been secured. This democratic form can be verified with the inclusion of the wider public aims and objectives of stakeholders while determining the objectives for efficient development of public infrastructure/services and inclusive governance structures that allow the involvement of interested stakeholders and their participation in the strategic decision-making and development process. There is this 'reality' that PPPs have had impacts on the public interest. These impacts, where the key performance indicators against the effectiveness and efficiency concerns in the public service provision via PPP implementation, are measurables that can be verified. Some of the impacts of PPPs experience in delivering public services can be explained in relations to the governance formed for PPPs where measurables such as transparency concerns can be identified. The necessary steps that secure democratic governance for PPP implementation success in the public interest can be easily investigated by focusing on the changes in governance and be synthesised from relevant PPP and SCF literature, and then subjected to empirical testing from a positivist paradigm.

The researcher believes that through the application of the SCF and PPP literature to develop conceptual framework for the research inquiry and utilising it to draw-upon the broad perspective of stakeholders, the PPP governance can be best investigated using qualitative positivist approach. The positivist approach employed here entails the element of deductive natured research that tests hypotheses or a priori theory (Irene, 2014). As the study is positioned in this paradigm, the positivist assumptions of ontology, epistemology, axiology and methodology are further discussed in the following, together with ways in which this paradigm guides the research process.

3.2.1 Ontology

The ontological view that relates to the present research inquiry is external, objective, and independent of social actors (Saunders et al., 2009). The central difference between positivism and other paradigms relates to objectivism, the ontological view employed to producing knowledge (Saunders et al., 2009). This position is in extreme opposite to subjectivism, in which researchers give importance either to 'meanings' attached by participants or dependency on social actors to contribute to knowledge (Wahyuni, 2012). Furthermore, the meanings attributed to the situation are directed towards certain objects or things in subjectivism (Creswell, 2007). The researcher's view in the present analysis of PPP governance being independent of social actors, renders it different to the majority of PPP studies that, mostly taking a constructivist point of view (Brewer et al., 2013), rely on 'meanings' provided by professional PPP managers or senior experts, public sector consultants, private companies, and financial advisor to contribute to the understanding of working PPP projects. Central to the purpose of the current enquiry is to move understanding of PPP governance beyond a simplistic perception of projects or actors (directly involved organisations) of projects in order to assess PPP projects. Instead, this study provides a broader stakeholder perspective in assessing the governance of PPP projects.

3.2.2 Epistemology

The epistemological view of positivism assumes that there are observable elements of a phenomenon that can provide credible data and facts. This view focuses on the role of natural science in developing causal relationships and reduces the phenomena to its simplest elements (Saunders et al., 2009). The current study does not include the subjective opinions of the researcher about the governance of PPP projects and its impacts on the public interest. The researcher views there are objects that exist separately from the researcher and they can be studied. Through the application of SCF and the existing PPP literature, which are utilised to develop a conceptual framework for the study (see Figure 2.6), the present study investigates the ways in which the governance of PPPs where key strategic choices are not of the wider stakeholders and the exclusive structures of strategic decisions are present, the wider impacts on the outcomes in the public interest can be explained. The broad governance approach in the study adopts the concepts of democratic

governance, strategic choice, strategic failure and strategic decision-making structure and they are operationalised in a set of measures (indicators) that could reflect the analysis of governance of PPPs not being in the public interest. The impact of PPPs on the outcomes, where ignoring the aims and objectives of the wider public (strategic failure) against the key performance indicators are measurables, which can be defined and patterns can be defined about the impacts on the outcomes and the reasons why PPPs might not be in the public interest. The belief around exclusive governance structures, where the strategic decision power and wider concerns of transparency and accountability, public trust, relationship development and conformance to PPP vision are measurables, can be operationalised and indicate the reason of the PPP projects not running in the public interest. The research project states that these operationalised constructs can explain the link between democratic governance and PPP outcomes in the public interest. The study then applies causal explanations offered by the SCF and explored data for themes (elements) that match the identified themes in the conceptual framework to understand what causes the projects and the PPP development process to fail to operate in the public interest. These objects are the basis of knowledge that can be confirmed and validated.

From a positivist stance, the research design needed to collect data to explain the PPPs governance, its not running in the public interest and test priori theory. A case study research was sought as it allowed this investigation and provided answers to 'how' and 'why' questions (Yin, 1994). The positivist approach of case study is supported by earlier researchers (e.g. Yin, 2014; Eisenhardt, 1989). The study has defined concepts and a single case study of PPP governance in the KRI's electricity sector context. The concepts are used to point to the elements of interest and explain cause and effect relationships. The outcomes from the data collection and analysis are used to compare findings of the case study with the expected results by the developed theoretical framework to investigate the governance of PPPs. Therefore, a case study strategy is appropriate for explanatory research and for answering the current research questions (Yin, 1994).

The design of the case study research within the positivist approach is according to the criteria of the natural science model of research: controlled observations, controlled deductions, replicability, and generalisability (Lee, 1989). The knowledge to understand PPPs success in the public interest is acquired through the identified theoretical constructs that are reduced to the simplest elements of performance, governance structures and

stakeholder participation. They are measured and evaluated with identifying naturally occurring controls (Cavaye, 1996 in Shanks, 2002). The in-depth understanding of broader stakeholder perceptions is enabled by a single case study in addition to substantial participants' perceptions. In the case study, semi-structured interviews, focus groups, and documents are employed to use multiple sources of evidence to draw upon data collected from diverse groups of stakeholders and to provide rich evidence for the case study. The data collection through conducting semi-structured interviews is to gather data from the public sector private sector participants, interested stakeholder groups to understand how the PPP projects are governed and to elicit their perceptions about the performance, governance structure and wider concerns, and their participation in the strategic decision making and development process. Focus groups also are thought to provide a perception of different group of participants and make it possible to understand the different perceptions. The variation of methods provides rich and comparable data to support the propositions of the case study and corroborate the same fact and finding through triangulation (Rowely, 2002). The justification of using these methods is detailed in Section 3.5.

3.2.3 Axiology

According to the axiological view of positivism, the researcher's own value plays a role in conducting a credible research project (Saunders et al., 2009). In light of this, the researcher considers dealing with what constitutes facts and the separation of value judgements and personal experience. Ethical considerations also have been paid attention to in conveying the understanding of reality. The ethics of a positivist researcher investigates the objective reality and considers a close possible representation without violating the ethical system (Henri-Paul, 2010). The ethical considerations of this study are detailed in Section 3.6.

3.2.4 Methodology

The methodology of the paradigm of positivism employs mostly quantitative methods and statistical analysis, as its focus often falls on quantification and structured or scientific measurements. While the characteristics of positivism are applied in this study, the approach for data collection is qualitative (semi-structured interviews and focus groups). This approach has been chosen because, in order to provide a broader view of the

governance of PPP projects, the study targets a wide range of stakeholders as participants. The qualitative design allows the flexibility in obtaining a sufficient range of the stakeholders' views and the exploration of themes within different group of stakeholders. Further advantages of this approach include the more effective control of a wide range of data with each stakeholder group and the investigation of wider issues during the data collection process. Qualitative techniques can be adopted within this paradigm to carry out an in-depth investigation (Saunders et al., 2009; Wahyuni, 2012). The qualitative methods are adopted to explore patterns (themes) about the broader measures of performance and the wider issues in the governance structure of PPPs in light of the theoretical framework of the study. The elements which operationalised from the concepts are examined and used to confirm the relationship between them. The study employed semi-structured interviews and focus groups. The researcher applies those strategies that deal with the issue of bias often raised in qualitative studies and its effects on the validity of data collection (Maxwell, 2009). The research design informed by these assumptions is detailed in the next section.

3.3 Research Design

This section provides the details of the research design to obtain data relevant to addressing effectively the questions of the study on governance of PPP projects. The research design is *'the logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions'* (Yin, 2003, p.19). The section begins with the researcher's definition of PPPs and the related type of BOO, which is the focus of the study on this form of PPPs. This study defines a PPP as a long-term contractual agreement between the public and the private sectors in which they jointly develop infrastructures or services and share risks and resources. Within the present project, the BOO is defined as a type of PPP scheme in which a private company builds, owns and operates a facility with no finance from the government. Although the facility (e.g. a power plant) remains in the ownership of the private company, there is an obligation by the government to purchase a service (e.g. electricity produced) provided by the private company on an agreed price during a long-term contract.

Regarding the research design, research questions are helpful in framing the focus of the study (research questions link to the objectives of the study and the developed conceptual framework), and in identifying the ways in which to conduct the study in terms of the selection of interviewees and the collection and analysis of data (Maxwell, 2009). The first

research question concerns the way that the PPP projects operate and the extent to which stakeholders perceive that the projects have performed effectively regarding meeting the objectives of stakeholders of projects, and who benefited throughout the main delivery phases. The second question relates to the way the PPP projects are governed and to the wider governance issues raised in the governance structure as well as the implications of the PPP decision on the public interest. The third question relates to the inclusive governance structure of PPPs and whether public participation is allowed and how participation can be influential. This qualitative study seeks to answer these questions by adopting a case study research in an analysis of the performance and governance structures of BOO projects, and public participation in the context of the electricity sector of the KRI (see Section 3.4). Guided by the SCF and the PPP literature, the present study aims to explore themes (patterns) such as the performance and impacts of BOO project outcomes, the wider issues related to the governance structures of BOO projects and the electricity sector as a whole and their implication of the public interest, and the degree of stakeholder involvement in BOO strategic issues from the perspective of diverse groups of project stakeholders. This is to explore the way the BOO projects and the electricity sector have performed, and the governance structure for strategic decision making and development process have evolved after the adoption of the BOO scheme in the electricity sector. The rational for choosing the case study strategy, for the selection of participants, data collection techniques (focus groups and semi-structured interviews) and the analysis are detailed in the following sections.

3.4 Case Study Strategy

A case study research strategy is thought to well suit this research precisely because the aim of the study is to gain full insights into how the PPP projects and the electricity sector of the KRI as a whole have been governed. In investigating the PPP experience, scholars tend to employ case study as a research inquiry strategy (Tang et al., 2010). Reeves (2013), for instance, relied on three case studies to analyse the PPP experience success from economic and governance perspectives in the water services sector and in social housing in Ireland. A case study contains '*a detailed investigation, often with data collected over a period of time, of phenomena, in their context'* (Hartley, 2004, p. 323). The use of a case study has assured the in-depth investigation of governance of PPP projects and helped to explain how and why questions about project performance and governance structures (Yin,

2003)1. While this is a key advantage of the case study strategy, the main rational of utilising a case study here is the potential to explore patterns (themes) in the data (collected through employing qualitative techniques) guided by a priori theory, therefore, not developing a grounded theory (Yin, 2014).[4]

This research applies the SCF to the evaluation of governance of BOO projects and the electricity sector of the KRI as a whole and explores elements (patterns) that match the conceptual frameworks guided by the SCF. The governance of the BOO project in the electricity sector of the KRI is identified as the case. The KRI government promoted PPP policy implementation to pursue the development of the infrastructure sectors. The electricity sector of the KRI is one of the sectors that has experienced a market-based reform and several BOO projects have been approved for the electricity generation service.

Yin (2014) and Stake (1995) have identified different types of case studies. Yin categorises these types as exploratory, explanatory, and descriptive. For this project's in-depth investigation and explanation of governance of BOO projects and the electricity sector as a whole it is the explanatory case study that fits best. According to Harder (2012), *'explanatory case studies should consist of an accurate description of the facts of a case, considerations of alternative explanations, and a conclusion based on credible explanations that are congruent with the facts'* (p. 372). Specifying this in relation to the present study, its concern is to assess governance of PPPs from a broader view of project stakeholders and to deeply explain the experience with PPP projects impacts, as this type of case study provides both a surface and deep level explanation of phenomena in data (Zainal, 2007). To overcome the inclusion of only policy makers' practice-based evaluation that has been showing contradictory pieces of evidence in terms of achieving success in PPP projects (e.g. Hodge and Greve 2007), the current evaluation then aimed to include wider perceptions. The identified conceptual framework for analysing the PPP governance served as a base in mapping the type of information that has explanatory values (Greene and David, 1984). The study has also considered a careful design and the components of rigorous case study (Baxter and Jack, 2008; Yin, 2003). These components are detailed in the following:

[4] The case study design here is not aimed to observe patterns form the empirical data that help creating theory (Eisenhardt and Graebner, 2007). The data is explored to find patterns that match the themes that are identified in the conceptual frameworks guided by the SCF and the PPP literature.

First, the component which relates to defining the research questions is considered. The questions are stated in Section 3.3 and are followed by the critical action of determining how and why to assess the performance and governance structures of PPP projects, and how widening participation in governance process will be influential. Secondly, the study's initial propositions are identified. The proposition directs what should be examined within the study (Yin, 2003). The SCF was helpful in synthesis of the propositions of the case study. The SCF states that democratic governance allows stakeholder participation in the strategic decision-making and incorporates the aims and objectives of stakeholders can serve the public interest in the PPP projects. The case study propositions are the following: PPPs can be in the public interest where: strategic choices are based on democratically broad stakeholder objectives, the governance of strategic decision making is inclusive and it considers wider governance concerns, and governance allows participation in strategic decision making and the 'voice' to be influential.

Drawing upon this, the study further investigated the participation of all stakeholders in strategic decisions in particular, to understand the level and design of effective stakeholder participation in the PPP strategic issues and the development process. The propositions guided the research process and the structure of data to be collected, and were essential in the development of the conceptual framework (Greene and David, 1984). The aim for developing the conceptual framework was to identify a stakeholder's perspective framework to evaluate the performance and governance structures of BOO projects in the context of the electricity sector of KRI, and to frame findings that answer the research questions and finding patterns that match a priori theory. The study first conducted a comprehensive PPP literature review to identify the traditional PPP performance evaluation elements and the dimensions of governance along the SCF focus (theme) and also to provide a broader perspective to explore the PPP impacts on the development outcomes and the wider implications of the governance structures both of BOO projects and the electricity industry as a whole.

Thirdly, the critical factor of defining the case study, the unit of the analysis is identified (Tellis, 1997). Four BOO projects constitute the base of a single case study. Together, all these projects reflect the governance of BOO projects in the KRI's electricity sector. Of the selected BOO projects, two are at operational phase and two at the construction phase. All these projects are a BOO contract-based projects for 15 years between the KRI

government and private project developers in which the government's obligation is to purchase the electricity generated from the power plants, which are owned by the project developers, and to provide fuel for the power plants (see Chapter Four for more detailed background). These projects are all selected from the electricity generation sector of the KRI based on their capacity of generation, as all BOO projects were approved only in the electricity generation sector of the KRI (at the time of writing). Although they are located in different governorates, the electricity to be produced by these projects is transmitted to the national grid of the KRI, and from the system the electricity is distributed across all its provinces. For the reasons of access, time and resources available for the researcher, and also to maintain an in-depth focus on the case, the selection has been limited to four projects. The present case study design tends to enhance analytical generalisation, the expansion and generalisation of theory (Yin, 2003). Therefore, the case study is generalisable to the proposition that explains the causes for the governance of development through BOO implementation not being in the public interest. The case study, furthermore, has provided the flexibility to include embedded units. The four BOO projects to reflect the governance involve the sub-units of performance elements, wider governance issues, the governance structure of the strategic decision-making process and stakeholder participation. The study also explores how participation can be investigated thoroughly at different development phases of BOO implementation, rather than relying on projects at a particular phase.

Fourthly, the design components include linking data to propositions. In light of the conceptual framework that frame in-depth exploration, the study derives from these drawn BOO projects the diverse perception of stakeholders in terms of the most obvious challenges faced in their governance and performance and the value given to stakeholders' consultation and involvement. Several characteristics of the selected projects make the study highly suitable to the investigation of stakeholders' participation. While several scholars have identified stakeholder groups of PPPs as consisting of the public client, the private sector, and the general public, this study argues that these must be extended to include wider interest groups of the public directories, private partners including project companies and EPC contractors, the public-sector employees, Environmental Board, consumers, residents near power plants, the Investment Board, Provincial Councils and Labour Unions. This broader view provides a rich evaluation of BOO implementation in

terms of performance and governance at the project and sector levels. Highlighting the wider perspective has simplified identifying the unit of analysis (Baxter and Jack, 2008). Fifthly, the case study design considered criteria for interpreting the findings. The study focuses on the governance of BOO projects and the KRI electricity sector as a whole to draw detailed implications from. What has been attempted in this study is to analyse stakeholders' perception of BOO projects and to explore elements (patterns) that match the themes identified in the developed conceptual frameworks guided both by the SCF and the PPP literature. The case analysis comprises several stages. First, each stakeholder's perception of projects is analysed individually. Then comparison is made of stakeholders' perceptions within the two projects that are at construction phase and the other two projects that are completely operational. The final comparison is made across projects to explore thematic patterns that match the performance elements and governance dimensions identified in the conceptual frameworks. Analysis in such a way is believed to support the findings from the projects. Finding similar empirical patterns from the data strengthens the internal validity of the case study (Yin, 2014).

3.5 Data Collection Methods

It has been suggested that, in the case study, the combination of different data collection methods enriches the study from multiple sources (Eisenhardt, 1989). Therefore, in this research, interview and focus group techniques have been used to collect data from key stakeholder groups. Secondary data, the so called 'grey' literature, included documents and reports from internal source such as technical monitoring reports, organizational structure charts, the electricity sector evaluation reports (cost and fuel supply expenditures), and data sheets prepared by the Ministry of Electricity (MOE) of the KRI have also been used. The researcher obtained these from the MOE and they have been used to supplement and support certain findings from the interviews and focus groups. The details of data collection methods are:

3.5.1 Semi-structured Interviews

To collect comparable data from each stakeholder group, semi structured interviews were first conducted. Semi-structure interview was chosen to discuss the performance, governance structures and participation questions guided by the priori theory constructs and the focus on rich data for identifying causes of projects not delivering outcomes in the

public interest and on giving a clearer explanation to this. Semi-structured interviews allowed the discussion of several relevant key questions in the interview guide that needed to be discussed with each group of participants and they made it possible to stray from certain topics to provide further discussion appropriate with each group of participants. As the study assesses the governance of BOO projects and the electricity sector as a whole from the perspective of stakeholders, 63 interviews were conducted with the BOO project stakeholders from the companies directly involved in the four power plants, departments of the MOE, and other representative stakeholders. Table 3.1 shows the job title/position held by the interviewees. These provided insights and perceptions held by stakeholders in their evaluation.

To select the stakeholders for interview it is important to identify who are the stakeholders of BOO projects. The classification of stakeholders of PPP projects by Yuan et al. (2009), Doloi (2012a) and Li et al. (2012) were relied on. To identify stakeholders with direct and indirect interest, Doloi (2012a) specifies the classification of internal and external stakeholders along three functional systems: economic, political and cultural systems. Stakeholders in the economic systems have direct interest and are directly influenced by the project such as a board of directors, financial consultants, competitors, shareholders/investors, strategic alliances/partners, vendors, and employees/internal customers. The cultural system group consists of professional associations, customers and industry experts that are not directly influenced by the financial performance of the project but their lifestyle is directly influenced by the project, such as the impact of employees' working environment and the level of service provided to the end-users. Finally, the political group, consisting of government/regulator, general public, media, community organisation that differs from the economic and cultural groups as they are not directly influenced by the project but have concerns related to social justice, and the macro-economic perspective, such as the wealth distribution of the society and equal opportunities for minority groups. While these groups constitute the public, it is collectively referred to by the researcher as groups of stakeholders in order to more appropriately specify those public groups who have a stake in the BOO projects being evaluated. These groups include the general public/ consumers of electricity, representatives and interest groups, project affected groups, governmental organisations, and businesses. Drawing on the classification of stakeholders, stakeholders in this study are categorised along the following four groups of stakeholders:

1. A public-sector group which includes key public organisations that have direct involvement in the electricity sector development projects. These organisations are: the MOE, the Ministry of Trade and Industry (MOTI), the Board of Investment (BOM), the Environment Board (BE).
2. A private sector group which includes the project developer companies directly involved in BOO projects, EPC contractors, interested companies in investment projects, and investment banks. These businesses have direct interest in development projects and have influence, through the contribution of the private sector, on the development of infrastructure projects.
3. Stakeholders representative group which includes organisations and representatives that have indirect interests, but the BOO implementation has influence on their activities.
4. General public group which includes residential consumers and residents living by power plants.

As the present study aims to examine how the governance of sector and BOO projects operates in the public interest from the stakeholders' point of view, it is useful to identify the diverse and affected groups of stakeholders with direct and indirect interest in order to simplify the selection frame of participants representative of all stakeholder groups. The sampling frame for interviews includes those groups of stakeholders that are detailed in Table 3.1. However, for the general public group, the focus group technique is employed (detailed in Section 3.5.2). This group includes stakeholders who have direct and/or indirect interest, and are affected by the electricity sector development process through BOO projects.

To ensure anonymity, the interviewees are categorised in three stakeholder groups referred to as Public Sector Group (PSG), Private Companies Group (PCG), and Representative Stakeholder Group (RSG), and the interviews are coded as S, which denotes stakeholder, along with a number assigned to each interview; S1, for example, denotes the first stakeholder interview. In the result chapters (Chapter five and Six), the codes assigned to the interviews are used to present the perceptions of the interviewees. These groups provided an in-depth investigation of governance of BOO projects, wider issues and implications of market-based reforms in the KRI from a broader perspective and they ensured that wider views are included in assessing the BOO experience. These semi-structured interviews were conducted between November 2015 and November 2016. They

were face-to-face meetings in English, Kurdish and Arabic languages. The questions for all interviews were based upon the general theme of the impact of the private sector participation through BOO projects in the electricity sector, the performance of the projects in terms of objectives having been met, participation and governance issues identified in the conceptual framework, and the wider implications of these projects. For the RSG, the interview questions were extended to explore the role of these organisations and the people of affected areas and their participation in developing these projects, and these projects' wider implications for them (see Appendix A for a sample of interview questions). All, except 5 interviews with public sector participants were audio recorded. Upon the request of the interviewees, these were not recorded but notes were instead taken. The recorded interviews were all transcribed by the researcher.

For the PSG, the key participants are from the key organisations which have direct involvement in electricity sector development projects. As listed in Table 3.1, these organisations are: the MOE, the Ministry of Trade and Industry (MOTI), the Board of Investment (BOM), and the Board of Environment (BOE). The key interviewees from these organisations were selected based on their activities/responsibilities in these organisations and the knowledge they have about the projects. A list of these organisations/departments was created, access was obtained through personal contacts, and interviewee contact was through personal visits (contact). All interviewees approached from the PSG were willing to participate in the research project. The nature of the questions required the interviews to be conducted with participants at high organisational positions such as project senior managers at the departmental and senior level in the public sector. 22 interviews in total were carried out with this group. The interviews took place at the interviewees' location with each lasting for approximately one hour. They were all conducted in Kurdish language For the PCG, the key participants are from the project developer companies directly involved in BOO projects, EPC contractors, interested companies in investment projects, and investment banks. This group was targeted because of their direct interest in development projects and their influence on the contribution of the private sector to the development of infrastructure projects. The selection of the project developer companies was based on a detailed list of the companies provided for the researcher by the MOE. Access to the project developer companies and involved EPC contractors was gained through personal contact. The interested companies (not involved but had an interest to be involved) were chosen on the basis of informal discussions on BOO projects for the

electricity sector with a few participants from the PSG. The investment banks were chosen with the help of an internet search. The key participants are plants staff members at senior level from the project developer companies, interested private companies, EPC contractors, and senior managers at investment banks. To enrich the data and avoid bias, interviews were conducted with members who are experienced and knowledgeable in BOO projects. A list of these companies/banks were drawn, and access was obtained through personal contact, and interviewee contact happened through personal visits. All interviewees approached at the private project developers and EPC were interested to participate in the study and showed acceptance to being interviewed. Two companies from the interested companies were contacted, but only one was willing to participate in the study. All investment banks approached gave access to the researcher and selected senior managers who showed acceptance to be interviewed. In total, 28 interviews were conducted with this group, of which 15 interviews were conducted with project developer companies, 6 with EPC contractor company, 1 with an interested company, and 6 with investment banks. Interviews were conducted at the interviewees location and each interview lasted between 45 to 60 minutes on average. For the RSG, the organisations and persons were selected for the indirect interest they have and the influence of the BOO projects on their activities. As Table 3.1 shows, the interviews were carried out with members at high senior representative and advisory level, including Labour Unions branches of Chamber of Commerce and Industry, and provincial councils. They were selected from the businesses and employees' representative organisations range available in the KRI. For the representatives of the areas that the power plants are located in, the interviews conducted with the representatives of these areas including mayors and villagers' representatives (Mukhtars). These people have administrative authority given by the KRI government. Access to the organisations was obtained through personal contact and the contact of the mayors and Mukhtars was obtained through the provisional councils and personal contacts. All interviewees approached showed interest and gave permission to be interviewed. Each interview lasted approximately one hour. In this group, 13 organisations and representatives were approached. In total, 13 interviews were conducted with 2 high representatives from the Chamber of Commerce and Industry, 5 members from provincial councils, 2 mayors of the affected areas, 3 high representatives from Labour Unions, and 1 Mukhtar[5] of affected areas. Interviews were conducted at the interviewee's locations.

[5] Mukhtar is a person who acts as a head or representative of a certain village in the region. Villagers contact Mukhtars to solve issues. The KRI authorities appoint them.

Table 3.1 Summary of Stakeholder Groups Interviews

No.	Group	Sub-group	Code	Position (Job Title)
1	**Public Sector Group (PSG)**	MOE	S11	Senior Manager
2			S12	Senior engineer
3			S16	Senior Manager
4			S17	Senior Manager
5			S18	Senior Manager
6			S19	Senior Manager
7			S20	Advisor
8			S24	Senior Manager
9			S25	Senior Manager
10			S26	Senior manager
11			S27	Senior manager
12			S32	Head of department
13			S33	Senior manager
14			S38	Advisor
15			S35	Advisor
16			S36	Senior manger
17		MOT&I	S39	Senior manager
18			S40	Senior engineer
19		BOI	S37	High representative of the Board
20			S41	Senior manager
21			S42	Senior manager
22		EB	S43	Senior manager
23	**Private Companies Group (PCG)**	Project Developer Companies	S1	Senior manager
24			S2	Senior manager
25			S3	Senior engineer
26			S6	Senior engineer
27			S10	Senior engineer
28			S13	Senior manager
29			S15	Senior manager
30			S21	Senior manager
31			S22	Senior manager
32			S23	Senior manager
33			S28	Senior manager
34			S29	Senior manager
35			S30	Senior manager
36			S14	Senior manager
37			S34	Project manager
38		EPC	S4	Project manager
39			S5	Senior manager
40			S7	Senior manager
41			S8	Senior manager
42			S9	Senior manager
43			S31	Senior manager
44		Interested companies	S44	Senior manager
45		Investment Banks	S59	Senior manager
46			S60	Senior manager
47			S61	Senior manager
48			S62	Senior manager
49			S63	Senior manager
50			S64	Senior manager

Table 3.1 Summary of Stakeholder Groups Interviews (continued)

No	Stakeholder Group	Sub-group	Code	Position
51	**Representative Stakeholder Group (RSG)**	Chamber of Commerce and Industry	S45	High representative of the chamber
52			S48	High representative of the chamber
53		Provincial Council	S46	Member of the council
54			S47	Member of the council
55			S49	Member of the council
56			S50	Member of the council
57			S51	Member of the council
58		Mayors of affected areas	S52	Mayor
59			S53	Mayor
60		Labour union	S54	High representative
61			S56	High representative
62			S57	High representative
63		Villager representative	S58	Mukhtar

3.5.2 Focus Groups

To collect comparable data from other groups of stakeholders (general public group) who required a different setting for answering questions based on their group, focus groups were conducted. The purpose of focus groups was similar to semi-structured interviews, and it was to collect comparable and reliable data from participants of the general public group. This group of stakeholders, however, required a different setting for answering questions based on their group and the need for their interaction within the focus groups in order to explore their shared importance of issues about performance, governance structures and widening participation in PPPs governance. Focus groups aimed for the collection of more rich data to support the research argument and reveal varied and candid views about causal explanation, and about how they reflect on the aspects of the PPP governance as well as about their engagement in the governance of PPPs, participation and whether their participation will be influential.

The last group, labelled GPG, includes electricity consumers and residents near power plants. They were selected for the direct influence of the BOO projects on them in terms of the electricity service provided to them and other development and environmental needs such as job opportunities and less environmental impact, and the location of the power plants. The reason for conducting focus groups was to collect data more quickly than if each consumer or resident was interviewed individually. Conducting focus groups helped obtain the collective views of the consumers and residents and understand the experience of this group and the effects of the projects on them. In addition, conducting focus groups

helped to save time and collect a group of participants at one place. The social network of the researcher assisted in inviting residential consumers to voluntarily participate in the research enquiry. In total, 6 focus groups were conducted, of which 3 were with electricity residential consumers in the cities of Sulaimaniyah and Erbil, and 3 with residents and villagers in the affected areas i.e. locations near the power plants. In total, more than 48 consumers were approached. However, due to the researcher's timeframe and time and place suitability issues for the participants, only 8 for the first focus group, 5 for the second focus group, and 7 for the third focus groups were ready to be interviewed. In total, another 3 focus groups were conducted with residents and villagers of affected areas. Participants from the affected areas were approached with the help of arrangements offered by the mayors and Mukhtars of these areas. Overall, 4 residents were invited for the first focus group conducted in Shamamk, close to two of the power plants, 6 were invited for the second focus group conducted in Chamchamal, and 5 for the third focus group in Bazyan. All voluntarily showed interest to participate in the research project. Details of the 6 focus groups are included in Table 3.2. Participant of different ages, occupations and genders were involved. These focus groups were conducted between 16 September 2016 and 9 November 2016. They were all conducted in Kurdish language.

On average, each focus group lasted an hour and half, and they were audio recorded and subsequently transcribed by the researcher. The questions for the focus groups were reviewed slightly to avoid technical terms and allow discussions between the participants. The questions were based on the general themes of the difference after the private sector participation through BOO projects in the electricity sector and how has the performance of the projects been perceived in terms of the objectives of consumers and residents of the affected areas, the participation and governance issues identified in the conceptual framework, and the wider implications of these projects for the broad public and the ways to achieve effective participation. These focus groups helped access a broader public view and these projects' implications for them (see Appendix B for a sample of focus group questions).

Table 3.2 Details of Focus Groups

No	No of Participants		Age	Occupation	Gender	Date	Location
1st	8	1	41-50	Employee	Male	16.09.2016	Sulaimaniyah
		2	51-60	Teacher	Male		
		3	31-40	Employee	Male		
		4	31-40	Free business	Male		
		5	41-50	Teacher	Male		
		6	51-60	House wife	Female		
		7	31-40	Employee	Female		
		8	41-50	Teacher	Female		
2nd	5	1	41-50	Employee	Male	21.09.2016	Erbil
		2	31-40	Employee	Male		
		3	31-40	Employee	Male		
		4	31-40	Employee	Male		
		5	31-40	Employee	Male		
3rd	7	1	31-40	Employee	Male	18.10.2016	Erbil
		2	51-60	Employee	Male		
		3	51-60	Employee	Female		
		4	31-40	Employee	Male		
		5	41-50	Employee	Female		
		6	41-50	Employee	Female		
		7	41-50	Employee	Male		
4th	4	1	> 60	Farmer	Male	28.10.2016	Shamamk
		2	51-60	Farmer	Male		
		3	41-50	Employee	Male		
		4	41-50	Farmer	Male		
5th	6	1	41-50	Employee	Male	06.11.2016	Chamchamal
		2	31-40	Employee	Male		
		3	31-40	Employee	Male		
		4	31-40	Employee	Male		
		5	31-40	Employee	Female		
		6	31-40	Employee	Female		
6th	5	1	41-50	Mukhtar	Male	09.11.2016	Bazyan
		2	41-50	Employee	Male		
		3	51-60	Employee	Male		
		4	21-30	Employee	Male		
		5	21-30	Employee	Male		

3.5.3 Documents

Another method that was relied on to provide insights is document analysis. Certain secondary data in public documents has been relied on to supplement the interviews and focus groups findings in which all together supported and strengthened the research findings. Therefore, using triangulation by depending on multiple data sources in the research meant that this diverse data help to validate the findings (Heale and Forbes, 2013). The documents included reports from an internal source at the MOE such as technical monitoring reports, organizational structure charts, electricity sector evaluation data on cost and fuel supply expenditures, and data sheets prepared by the MOE. Some of these documents were provided during the interviews and others were obtained from the MOE departments through a formal information request supported by the Higher Education Ministry of the Kurdistan Regional Government in accordance with the public-sector organisation's procedure of information request. Some published reports conducted by international organisations such as World Bank are also relied on to extract further facts about the electricity sector development.

3.6 Data Collection Process

This section outlines the details of the data collection process. To ensure the quality of data collection, a comprehensive data collection plan was created. The plan included the selected stakeholder participants lists, locations, interview schedules, interview guides for interviews and focus groups. The process began with conducting interviews. From the list of potential interviewees, few from the private sector and public sector interviewees were contacted at the beginning of the process. Initial meetings with senior management in the public sector directories and private companies were held so as to gain access and achieve the participation of more interviewees in the research. These meetings offered better coordination and communication with the departments in the public sector and the project development companies.

After introducing the researcher to other departments by these senior managers, the list of the interviewees was finalised as more participants agreed and showed willingness to be interviewed. At the agreed time, location and scheduled interview, the researcher got in touch with the interviewee and introduced the research nature and aims to them. All

conducted interviews' details were recorded in a database for the purpose of organisation and coding.

The early interviews were scheduled with PSG and PCG interviewees. The developed interview guide for the semi-structured interviews contained many predetermined questions that the researcher was seeking answers to and that aimed to collect similar data from the participants. The sequence of the questions was not varied in the interviews. The questions were targeted at senior managers, project managers, senior engineers at the middle level of the organisations approached for the research. Some questions were unique to certain participants' groups based on their positions and level of involvement in the organisation. The first two interviews were held at the power plant site of one of the project development companies and used as a pilot of the questions. For other public sector interviews, the questions needed to be slightly customised so that they are unique to this group of stakeholders.

However, the interview was flexible to issues that brought into discussions more frequently by the interviewees about some of the topics. In the case of earlier interviews, the direction of the interview needed to be reviewed as the answers to a former question were provided in a way that avoided the necessity to progress to the next question within a specific theme for investigation. The questions followed the conceptual framework and focused on the thematic categories derived from the SCF and PPPs literature and therefore used to reflect on the relationship between democratic governance and on achieving PPP in the public interest. The questions were designed to address the aspects of the governance of PPPs and obtain the perceptions of stakeholders. The first group of questions related to the performance of PPPs projects that facilitated the assessment of meeting the stakeholders' objectives and outcomes in the public interest. It was dominated by the SCF perspective of assessing the performance of a reformed strategic sector of electricity. The second group of questions related to governance structure and wider governance issues. It included the theme of strategic decision-making structure, transparency and accountability, relationship development with stakeholders, public trust, and conformance to PPP vision. The third group of questions related to widening participation and the degree of stakeholder involvement. A detailed interview guide is attached in Appendix A.

Prior to conducting more interviews, there was a need to exclude some of the complex sub-questions that did not seem relevant to the research questions. During the interviews, new paths that have not initially been considered initially by the researcher can be explored (Gray, 2004 in Doody and Noonan, 2013). Therefore, the broad areas were identified accurately in the interview guide, and a clear path developed to ask about the important questions relevant to exploring issues specific to BOO contract type.

It was also noticed that a more conversational interview form was needed. The phrasing of some questions was adapted as more participants were approached at different organisational level and project positions (i.e. obtaining opinions and values of the interviewees required the first questions to start with 'what are, in your opinion, the difference in the electricity sector after the BOO adoption?' Some questions were required to be more open in nature to help the interviewees provide deep answers and reflections on the topics to be further explored within the broad areas. For example, during the early interviews, some phrases had not provided details because of the type of closed question they did not encouraged discussion and explanation and led to 'yes' or 'no' answer. After listening to the interviews and revising the notes, the direction of the interviews took the appropriate path to best encourage interaction and enabled more detailed opinions and discussions about the research topics. There were few cases that the interviewees cut across the broad areas, but they provided responses that could be followed up by other questions related to other topic.

The components of the research topic had been given a logical sequence to cover most of the topics. However, in case, that the participants bring another topic while discussing a topic, probes had been used to ask them to reflect on the topic and elaborate more on important points. Probes were included to clarify the interviewees response to a question using focused follow-up questions (Doody and Noonan, 2013). For example, if the concerns of governance have been discussed within the strategic decision-making structure topic, the probes like 'can you tell me whether transparency is an issue?' had been used for more understanding and elaboration. The research skills developed throughout the process, for the last interviewees from SRG, the interview guide was more honed to the purpose of obtaining knowledge from participants. As the number of interviews was increasing, the saturation of themes was obvious. The investigation yielded similar themes if more interviews were conducted.

All the revisions to the interview guide led to better planning for focus groups. During the focus groups phase, the researcher created a comprehensive plan to monitor the process. The list of questions in the interview guide was reviewed to suit the understanding and knowledge of GPG participants. Some of the sub-questions were customised and some excluded because of non-applicability, for instance, questions related to performance objectives such as cost. Close attention was paid to the nature and type of the questions to be asked in order for participants to feel comfortable and have time to discuss the experience and opinions they have. The discussions allowed for further issues to be raised for more exploration. However, in two of the focus groups some details were overly discussed among the participants in which at some points the direction of the discussion was taken elsewhere (such as discussions about the wastage of electricity by households and government opportunistic behaviour in other sectors of economy). Because time allocated to the discussion was important, the researcher wrote notes and tried to probe answers in order for the focus of the discussions to be kept on important points. The wording and phrases of the questions enabled the elaborations on key points. The responses to certain questions informed the questions to be followed. The first two focus groups acted as a pilot and helped the rest of the focus groups to be well approached and the structure of the discussion to work better. It was also important to revise the questions' structure following the first focus group indicating that more sub-questions were required on participation and engagement in PPP governance.

3.7 Data analysis

The interview questions covered the thematic questions regarding the performance of the BOO projects and the electricity sector after the implementation of the BOO model and the reasons for stakeholders to be more or less satisfied with the outcomes and impacts of BOO projects, wider issues related to the governance structures of BOO projects and the electricity sector as a whole, the degree of stakeholder involvement in BOO strategic issues, reasons for limited participation and why the inclusion of specific groups has been more recognisable than others'. Because of varied evidence from multiple sources, the analysis of the case study had to follow strategy. The analysis relied on the examination, categorisation, and tabulation of evidence and aimed to find out whether they support or otherwise the initial propositions of the study (Rowely, 2002). The analysis structure relied on the use of the propositions that captured the research objectives (Rowely, 2002).

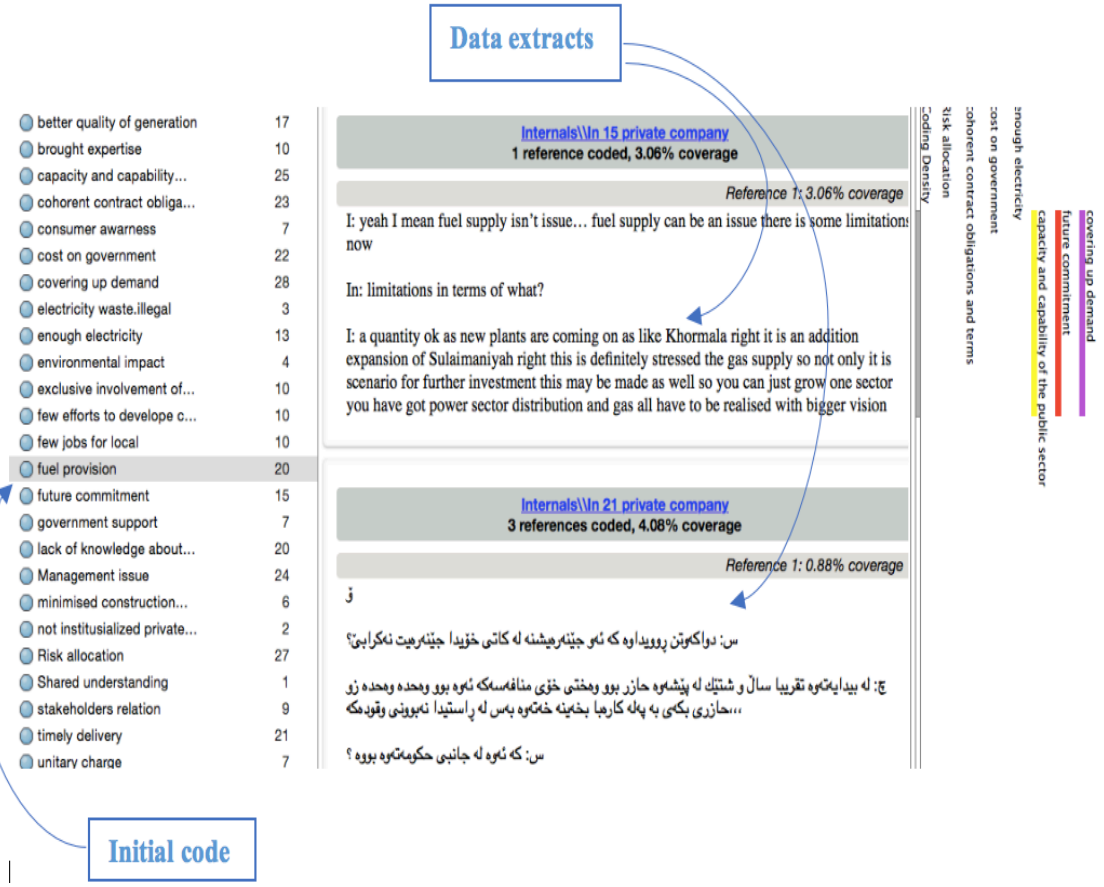
To make full use of relevant evidence, the thematic analysis was applied as a well-known method for qualitative analysis to produce the findings. The thematic analysis was used because the research questions required the identification of patterns of meaning across the collected data. This approach is able to provide flexibility and it is useful to answer types of questions that are related to examining the diverse participants' perceptions, highlighting similarities and differences and generating unanticipated insights (Nowell et al., 2017). This approach can be aligned with a positivist paradigm as it is applicable across a range of epistemologies and research questions (Braun and Clarke, 2006; Nowell et al., 2017). The aim during the theoretical thematic analysis was to focus on the use of a priori theory from the literature review and search for specific themes. During the analysis, the focus was on particular themes that were related to the diverse stakeholders' aims and objectives and to the impacts on the BOO outcomes. It was also on the structure has evolved to govern the BOO projects in the electricity generation sector of the KRI and to the explanation and implications of why the governance structure has evolved this way and that participation is limited in the governance process. Therefore, the form of the analysis tended to provide data that insightfully describe these interested areas in the case of the electricity sector of the KRI and the governance of BOO projects instead of the rich description of the data overall (Braun and Clarke, 2006). By using existing concepts and ideas with focusing on examining themes, the aim was to identify deductive themes (Braun and Clarke, 2006).

The thematic analysis in this study involved the categorisation and identifying themes according to the six phases summarised by Braun and Clarke (2006). The first phase of the thematic analysis began with familiarisation by the researcher of the data and what exist in its content. It involved reading and re-reading the transcripts of the interviews and focus groups by the researcher. Then the transcripts were subjected to initial coding by the researcher (phase two) with the aid of the qualitative software analysis NVivo version 11. From the transcribed responses, several codes were generated. This phase involved the coding of the whole dataset.

Two NVivo files with all codes from interviews and focus group extracts were created. The first file included the initial codes from the interviews with PSG and PCG participants. As an example, in Figure 3.1 the relevant information to fuel provision obligation in BOO contracts has been extracted from the interview transcripts and coded under the label 'fuel provision'. The other file included all other relevant codes form the transcripts of focus

groups and SRG. The reason for splitting the groups into two NVivo files was to ease and focus the iteration process of other stakeholder groups transcripts. The aim was to answer the research question of how PPP projects have performed to meet the diverse stakeholder objectives, which in turn has allowed to provide the broad stakeholders perspective in the analysis.

Figure 3.1 An Example of Coding Transcripts



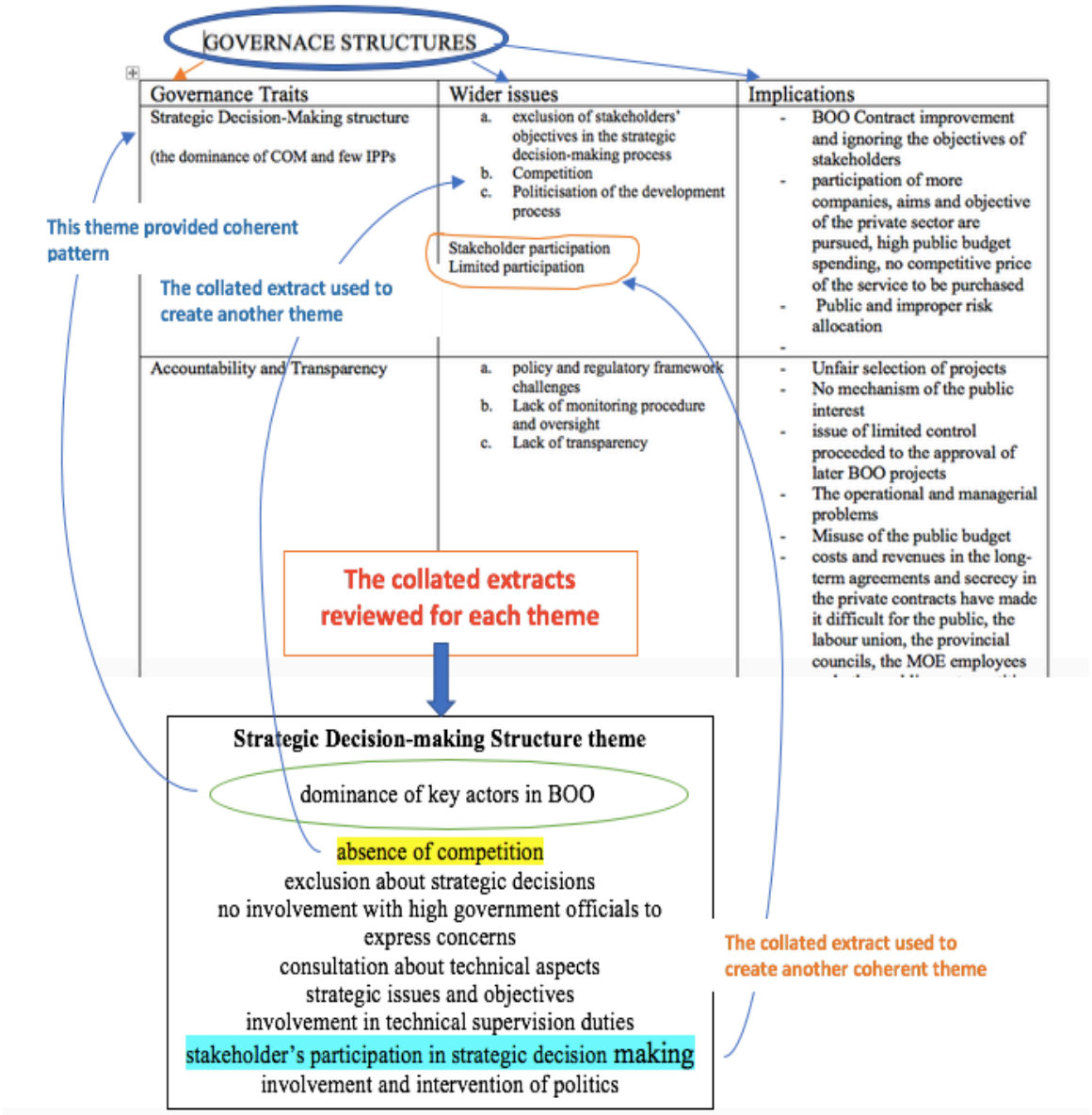
Then, all codes and relevant data extracts were put in nodes that were to be used to identify important patterns from the data relevant to answering the research questions (phase three). The data analysis maintained identifying the thematic sub-themes while the transcripts of interviews and focus groups codes were collated. Prior to moving to the following stage of analysis, all the codes and data extracts were refined and collated. This step considered how the codes and their relevant extracts from both files can be combined into broader themes. The selected codes were grouped under initial themes. For example, the codes such as of 'fuel provision', 'compensation of project development companies' revenues', 'load problems and transmission failure' and others were collated and combined into a broader initial theme of 'risk allocation'. The other file was also subjected similarly to identification of themes. Other initial themes of 'cost on government', 'quality public service provision',

‘quality of procurement process’, ‘other public benefits’, ‘related operational efficiency indicators’, ‘innovation enhancement and technological utilisation’ were initial examples that were created after collating other codes.

Later, in the phase of reviewing themes (phase four) a set of candidate themes were reviewed against the dataset to determine the themes and patterns that answer the research questions. At this phase of the analysis, some themes appeared that to be broken-down and some data needed to be coded as they provided additional data. For example, ‘availability, demand and revenue risks’, ‘fuel supply risks’, and some data coded and collated as ‘legal risks’ and ‘political risks’ were cohered together to become the theme of risk allocation when the collated data extracts reviewed against the themes. The refinement of themes involved the two levels of reviewing and refining proposed by Braun and Clarke (2006). To do this, the initial themes of four groups of stakeholders were copied into two documents and the reading of all the collated extracts began for each theme to indicate whether they form a coherent pattern or they reflect the meaning evident in the entire dataset. At level one, the collated extracts were reviewed for each theme and those that form a coherent pattern were considered. For example, the collated extracts for ‘structure of decision-making structure’ theme was reviewed, and some extracted data did not fit within it. Therefore, a new theme was created as shown in Figure 3.2. Then all other candidate themes were reviewed and they seemed coherent and to *‘adequately capture the contours of the coded data’* (Braun and Clarke 2006, p. 20).

In level two, a similar process was conducted but in relation to the whole data set. Individual candidate themes were considered for their validity and refined to determine the accuracy of their representation of data and the theme that answers the research questions. For example, as in Figure 3.2, the phase of refining themes ensured that the theme of strategic decision-making structure captured accurate data within the theme to address the research question of how the BOO projects are governed and what implications do the evolved governance structures have on the public interest. The governance structure themes that match the conceptual framework constructs, guided by the SCF, were shown the representation of data after they were refined and accurate titles have been given to them.

Figure 3.2 An Example of Illustration of Refining Themes



As the thematic map became clear, a move to the next phase was considered. Phase five involved further defining and naming themes was involved. The aim of this analysis was to analyse each theme in detail, tell the story of each and name them. The themes were grouped in one document and themes were settled on. As Figure 3.2 shows, for example governance structure themes were refined to governance traits (dimensions) themes, wider governance issues themes, and implication on public interest themes. The naming of themes was finalised, and the analysis moved to the final phase: producing the report. The themes that provided explanations were based on the data of the implications of BOO implementation experience and the causes of the governance of the BOO projects for not being in the public interest through maintaining the broad perspective of stakeholders. The themes that provided matching patterns in investigating BOO project performance, the

governance structure, and participation in the governance process of the projects and the electricity sector as whole are reported in the result chapters (Chapters 5 and 6). In addition, the analysis has considered further documents to support the findings from the fieldwork. This study has aimed to carry out in-depth investigations to inform the development outcomes and the governance process for successful PPP from various stakeholders' perspective.

3.8 Ethical Consideration

The researcher ensured that ethical issues are carefully considered in order to give participants the confidence in providing their views. The ethical challenges of anonymity, confidentiality, informed consent, and potential impacts by the researcher on participants and vice versa were observed (Sanjari et al, 2014). Moreover, since diverse groups of stakeholders are included, the researcher tried to avoid bias and any interference during the process. Attention was paid to the clarity of questions, of the purpose of the interviews/focus groups, and the use of terms. The researcher informed all participants of the nature and purpose of the study, ensured that all recorded information be kept safe in a database and used for the purpose of the study only. The researcher gave information about the types of the questions to be asked and explained them to interviewees prior to the interview/ focus groups in order for them to gain familiarity with them. Each interviewee was provided with the consent form and their names have been kept completely anonymous. The recorded audios also are kept in secured folders that only the researcher has access to. The researcher has used the transcriptions of interviews and focus groups verbatim, and paid attention to translations of those that were not in English. They were verified in one-to-one support sessions with tutors from the University of Bath Academic Writing Centre and checked by private professional proof-readers. This is to avoid any intentional misrepresentation (Henri-Paul, 2010). A sample of transcripts of interviews and focus group is included in Appendix C and D.

3.9 Conclusion

This chapter outlined the research methodology designed for conducting the analysis of the BOO implementation in the KRI's electricity sector. For an appropriate research design, the study drew upon the SCF and the critical concerns raised in the PPP literature to develop

a conceptual framework. These propositions guided the research process and design of the case study strategy. The case study considered developing conceptual frameworks for guiding the exploration of cases of the BOO projects. The basic sub-units are defined as the most obvious challenges faced in the governance and performance of the BOO projects, effective stakeholder participation in strategic decision making and the development process of the electricity sector. The main two methods for data collection are interviews and focus groups. For further validation of the findings, documents and data sheets from the MOE have been relied on. In the developed theoretical frameworks in light of the SCF, the objectives of BOO projects and governance themes are outlined and then evaluated against the perceptions of BOO project stakeholders obtained during interviews and focus groups. In Chapters Five and Six, the research findings and full insights regarding the study propositions are presented. The next chapter provides background on the KRI and its electricity sector development through the BOO implementation.

Chapter Four

An Overview of the Kurdistan Region of Iraq's Electricity Sector

4.1 Introduction

This chapter provides an overview of the electricity sector of the Kurdistan Region of Iraq (KRI) as the context of the analytical framework. The KRI, a developing economy, had struggled to provide reliable and sufficient supply of electricity for the public for more than a decade. In order to alleviate poor investment in the electricity sector and the inability of the public sector to develop essential infrastructure, which was caused by several political conflicts, wars, and sanctions that the region had been facing for decades, the Kurdistan Regional Government (KRG) introduced private sector participation in 2006. For the vertically integrated electricity sector of the KRI, which was previously characterised by an exclusive dominance of the public entities to generate, transmit and distribute electricity to consumers, the majority of electricity generation now depends on Independent Power Producers (IPPs) participation in order to meet the required investment in building power plants and increasing the supply of electricity to the electricity supply system of the KRI. This chapter reviews the status of the electricity sector in the past followed by the current structure after the implementation of the development plan of the electricity sector by the KRG.

This chapter is organised as follows. Section 4.2 provides an introduction to the KRI and presents certain development facts about the KRI's economy and its history. Then, in section 4.3, the chapter reviews the evolution of the electricity sector. Section 4.4 presents the current structure of the electricity sector, which includes the implementation of a PPP policy, through the use of Build-Own-Operate (BOO) project. The section provides the details of the development framework for the electricity sector and the engagement of IPPs in the electricity generation sector. In Section 4.5, the conclusion of the chapter is drawn.

4.2 Background and History of The KRI Economy

Kurdistan is a semi-autonomous region which is located in the north of the Republic of Iraq (Figure 4.1). The region comprises four provinces: *Erbil, Sulaimaniyah, Dohuk* and *Halabja* with a total population of 5.2 million (The Kurdistan Regional Government,

2018). The region is governed by the Kurdistan Regional Government (KRG), which is based in Erbil. In the Iraqi's constitution of 2005, the Kurdistan Region is recognised as a federated region within the federal Republic of Iraq and its institutions (the Kurdistan Regional Government, the Kurdistan Region Presidency, and the Kurdistan Parliament) have the right to exercise legislative, executive, and judicial authority in many areas. This authority includes decisions over allocating regional budget, responsibility for policing, security, education, health, the management of natural resources, and the development of infrastructure (The Kurdistan Regional Government, 2018). The region's economy is heavily shaped by the government sector, the oil industry, agriculture, construction, services, and tourism. As the entire country of Iraq, the KRI is an oil revenue dependent economy.

Figure 4.1 The Kurdistan Region of Iraq Map

Source: The economist website (2009)

Throughout the three decades prior to 2003, the economy of the KRI was run on the periphery of Iraq's economy, which was classified as a 'war-based' economy (Aziz, 2017). The economy of Iraq experienced destruction for many years due to destabilising conditions. As a result of the first Gulf War, Northern and Southern Iraq uprisings, the UN sanction on the country, and 2003 invasion by the coalition forces (the second Gulf War),

economic growth was weak. During the distressed period of the 1990s, successive governments pursued policies that caused the region and the country to struggle economically. The infrastructure was damaged because of the wars that Iraq was involved in during that period. Furthermore, the lack of capital investment along with the United Nations (UN) embargo prevented the rebuilding the its infrastructure (Foote et al., 2004).

The KRI's economy experienced further weaknesses due to the internal political issues and conflicts after its formation. In 1992, after the Kurdish people uprising, the Iraqi government withdrew from the Kurdistan region. This was followed by a no-fly zone in northern Iraq jointly policed by the US, UK, and France to protect the Kurdistan Region from any military pressure by the government of Iraq. After this, the KRG was formed by the Kurdistan National Assembly, the first democratically elected parliament in the KRI and Iraq. This new Kurdish government consisted of two dominant forces, the Kurdistan Democratic Party and the Patriotic Union of Kurdistan. However, the political struggles and engagement of the two parties in civil war led to geographical division with two parallel regional governments, in the cities of Erbil and Sulaimaniyah. Despite a very weak economy, the biggest issue was the weakness and inability of the KRG to provide the socioeconomic infrastructures that were necessary to meet the demands of its growing population.

As the two KRI's governments finally reunited in 2006 to form the fifth cabinet of the government, the independent governance of the region by the KRG began. The new beginning that the KRG experienced is recognised as an economic 'golden period' (Toperich, 2017). Between 2006 to 2014, the region was considered as the most stable and growing regional economy compared to the other parts of Iraq. However, the KRG had to overcome a number of shortages and occasional problems in order to pursue economic development. In Kurdistan Business Agenda (2006), several problems that the infrastructure of the region had experienced are presented such as:

4 Ineffective basic infrastructure such as roads and electricity that limited regional businesses' investment activities. The internal and international roads deteriorated, and the lack of railways was evident.

- The expanding role of the state was challenging amid the absence of planning and regulatory frameworks to govern such involvement. Hence, the state suffered from administrative laxness, the spread of disguised unemployment, the absence of financial

transparency in some governmental administrations, the absence of legal accountability (because financial oversight reports were neglected), and overlapping laws and regulations that govern the economic activities of various business sectors.

- The wasting of water resources, the continued decrease in groundwater levels, and the lack of sewage systems which had consequently affected the water sector's infrastructure development.
- The continued deterioration in the region's capacity to provide electricity and the limited-capacity of electricity generators operated by the private sector.

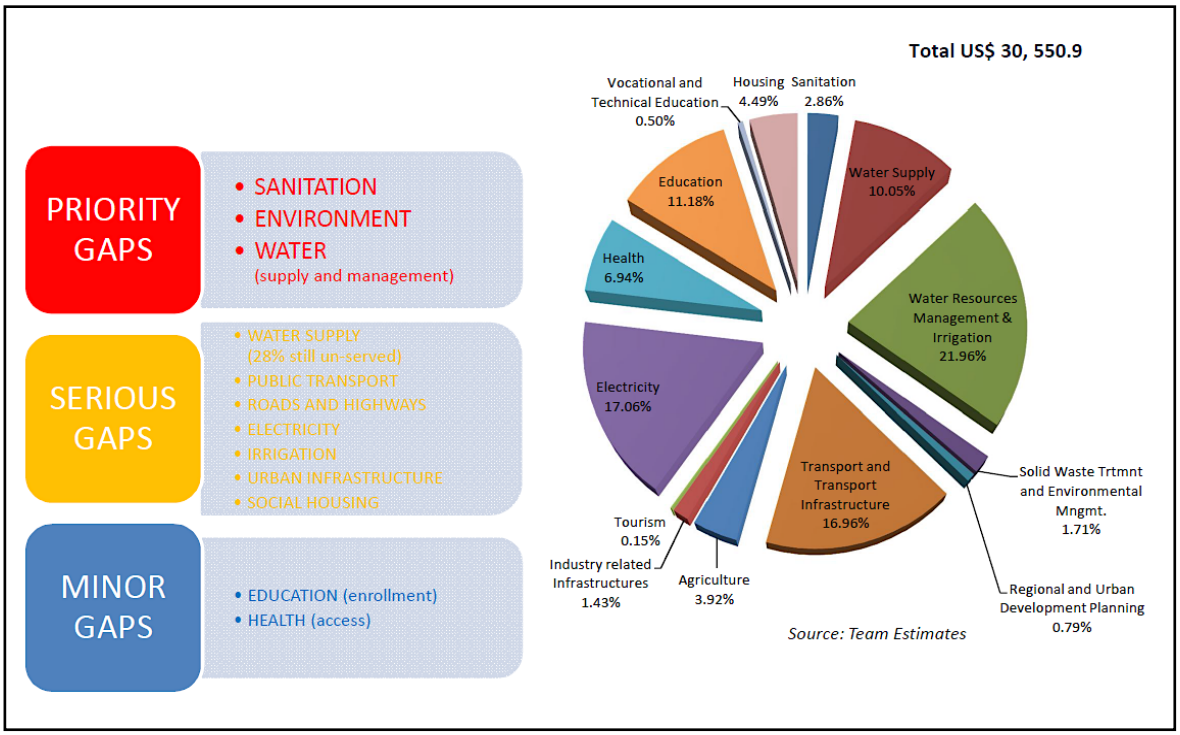
The KRG's efforts to promote economic growth included launching a number of new projects and policies to develop the economy of the region. These efforts were centered on the construction of international airports, a proactive oil and gas policy, the reconstruction of the infrastructure, promoting relations with members of the international community, and greater funding for social and economic projects within the region (The Kurdistan Regional Government, 2018). During the fifth cabinet, the KRG's attempts to develop the economy have resulted in significant economic growth and in the improvement in the delivery of basic infrastructure services. A notable result can be seen in the region's growth rate[6]. As of 2012, the growth rate was 12% and a GDP of over US$23.6 billion, with per capita income standing at US$ 4,452 (Invest in Group, 2013). Among all sectors of economy, infrastructure was one of the vital sectors that had a large budget assigned to it. Between only the last quarter of 2011 and the 1st quarter of 2012, approximately US$2.4 billion of the core infrastructure projects were licensed in the region (British Expertise International, 2012).

Importantly, the KRG soon recognised the need for huge investments in the basic infrastructure to achieve economic development and the welfare of its population. According to the estimation by the ministry of planning in 2012, there was a huge financial gap of around $30 billion, predicted for the period (2013-2020), in the investment required in infrastructure projects with priority gaps in providing water resources, transportation, and electricity (Figure 4.2). Accordingly, the KRG has promoted the Public Private

[6] Newer data is not available, in particular, for the KRI's GDP growth from 2014 due to the impact of Islamic State of Iraq and Syria (ISIL) attack. Later, in page 6, further details of the current economic situation of the KRI are provided.

Partnerships (PPP) policy implementation to involve the private sector in developing the sectors of economy.

Figure 4.2 Main Infrastructure Gaps and Priority Investments in the Kurdistan Region



Source: KRG Ministry of Planning and UNDP - SEINA Report (2012, p. 22)

Over the recent years, the KRG approved a number of contractual PPP projects in the sectors of manufacturing, education, electricity, and health. To encourage investment by the private sector, the KRG also enacted the investment law No. 4 in 2006, which promotes investment projects in all sectors of the economy. This law was issued with a view that should create a climate for attracting both local and foreign investors in the region. The law removes any legal constraints and permits the investment of national and foreign capital collectively or individually in investment projects towards the contribution in the process of effective economic development. It also allows granting facilities and encourages incentives and a 10-year tax exemption for invested capitals. The law authorised an established board, the Investment Board of Kurdistan, to organise the various aspects for investment operations in the region. However, the foreign and local investors perceived the investment climate differently. Given the ever-recurring political and security issues in the KRI and Iraq as a whole, foreign investment has not been in increase at the regional level.

Despite all of the efforts of the KRG to improve the economy, war and security issues have collapsed it again in 2014. The period of flourishing economy ended when the war with Islamic State of Iraq and Syria (ISIL) began in 2014 and led to a dramatic recession of the region's economy. The economy has also been strained because of 1.8 million refugees from Syria and other displaced people from different parts of Iraq (after the ISIL's overtook of Mosul, the second largest city and several other Iraqi areas), and other political conflicts within Iraq. After the suspension of Iraqi's central government budget share of 17 percent (as of Iraqi constitution) in 2014, the KRG began to sell oil interpedently to cover the expenses of the aforementioned war and public-sector employee payments. However, the drop in global oil prices and the fluctuating oil production level since 2014 have led to a reduction in the KRG's revenue (Salih, 2016).

While strong defense forces have protected the region from the ISIL assault and its overtaking areas of the region, the KRG's efforts to preserve economic stability and development plans were undermined by the efforts of defeating ISIL. The undesirable impact on the region's economy and the downturn were perceived to be only short-term. However, the KRG has confronted significant consequences such as the inability to pay the salaries of about 1 million people dependents on the KRG government.

The KRG has received the international community's advice in supporting several plans and reforms. For this reason, there are expectations that the economy will grow again because of the steps that the KRG has taken to restructure the economy involving efforts to reduce corruption and introduce transparency with the help of the World Bank such as employees' electronic payment system to remove 'ghost employees', who are registered and paid twice, reduction in the public-sector salaries and promotion systems (Toperich, 2017). The World Bank states that 70% of the current KRG's budget is spent on wage bills including pensions (Aziz, 2017). Therefore, this is the first step to audit the public-sector employee system and reduce the excessive use of the region's revenue. The other step is to employ reform plans for enhancing economic growth via the development of the natural resources sector. For example, mineral exploration and development, as in 2016 international mining companies were invited by the Ministry of Oil and Natural Resources to invest in the mining sector of the KRG and more than 10 qualified international companies expressed interest and submitted proposals (Toperich, 2017). The KRG also agreed to sell oil in international markets and make more efforts to develop oil production.

The World Bank has also provided advice, technical assistance and analyses. This was upon the KRG's call to get assistance from the World Bank to reform the economy including the sectors of electricity, infrastructure, transport, information and communication technology, and business environment (Aziz, 2017). With these ongoing steps, there is a hope that the economy will recover.

4.3 Evolution of the Electricity Sector

The issue of electricity shortages has been a major hurdle for the economy of Iraq and the KRI for several decades. According to Power Engineering International (2009), prior to the first Gulf war in 1990, Iraq was recognised as having one of the largest installed electricity generation capacities in the Middle East. However, since then electricity shortages have been attributed to: severe damage to the electricity system infrastructure by a combination of wars, economic sanctions, and other conflicts (see Section 4.2), as well as bad management, poor policies, and lack of proper future planning (Al-Khatteeb and Istepanian, 2015).

Prior to the Gulf War, Iraq's total installed generating capacity was 9295MW with a peak demand of about 5100 MW and 87% of the population had access to electricity (UNDP and World Bank, 2003). The electricity network consisted of 120 generating units of various thermal, gas turbine and hydropower stations (Power Engineering International, 2009). During the war, the electricity system was damaged and the power stations were largely affected. After the war, only 50 units with a total generation capacity of 2325MW remained in working order due to damage to approximately 80% of gas-turbine power stations (UNDP and World Bank, 2003). In addition, there was damage to substations, and several transmission lines were put out of service, and electricity cuts reached up to fifteen hours or more, and no supply in some areas (UNDP and World Bank, 2003).

In the aftermath of the first Gulf war, the UN Security Council established the Oil for Food Programme in 1995, which was adopted under the Security Council resolution 986 to allow the Iraqi government to sell oil to finance food and other necessities for its population. According to this programme, funds were provided to undertake some repairs in the electricity system which led to the increase in generation capacity to about 4000MW (UNDP and World Bank, 2003). The electricity sector of Iraq was also reorganised and

separated from the Ministry of Industry, and the Commission of Electricity was formed to oversee and operate the sector (Power Engineering International, 2009). However, the country continued to face insufficient and unreliable supply of electricity as the status of generation units was not improved because of the make shift nature of the repairs and the unavailability of spare parts and poor maintenance (UNDP and World Bank, 2003). In 2002, the annual per capita consumption of electricity was estimated at about 1400 kWh, however, the supply shortage has decreased the annual per capita consumption to around 700kWh in 2003 (UNDP and World Bank, 2003). After the US invasion in 2003, the reconstruction of the Iraqi electricity sector was estimated to cost US$ 35.8bn (Fielding-Smith, 2010). Several maintenance and urgent repairs were conducted to allow the damaged transmission lines to work. In 2004, after the withdrawal of Saddam's regime, the Ministry of Electricity was established and control over the electricity sector of Iraq was centralised. Since then several efforts have been made to reconstruct the electricity sector with the aid of the US and support by the World Bank to build new power stations. For example, several power plants were built from the US$1.8 billion spent by the US to reconstruct the Iraqi infrastructure after 2003. The United States Agency for International Development also tried to restore a big power station and installed small generation units in Baghdad (Power Engineering International, 2009). In 2008, the Iraqi government signed contracts with General Electric and Siemens to purchase turbines with a generation capacity of 10000MW. It was planned by the Iraqi government that some investment projects of 8000MW become operational in 2014 with the aim to reach 20000MW by 2015 (Istepanian, 2014). The government also aimed to attract international investment in the generation sector through the Independent Power Producer (IPP) initiatives along with developments in the distribution and transmission sectors. Overall, the Ministry of Electricity identified 24 Gigawatt of generation projects in its master plan (Power Engineering International, 2009). However, despite these efforts, the government have not been able to meet the ever-increasing demand of electricity, leaving the country with frequent cuts. Due to population growth and a substantial increase in the Growth Domestic Product (GDP) growth after 2003, as a result of increase in crude oil prices, the demand for electricity increased in all Iraq (Al-Khatteeb and Istepanian, 2015). Furthermore, the most recent ISIL attack has affected the economic development of electricity generating plants, and an electricity loss of 8000MW in the electricity system was announced by the Ministry of Electricity in 2014 (Al-Khatteeb and Istepanian, 2015).

Similarly, during the 1990s, the KRI's electricity system experienced a poor capacity of generation and an unreliable electricity supply. After the first Gulf War, KRI's three provinces were removed from the national grid of Iraq by the government (UNDP and World Bank, 2003). The two hydropower stations of Dukan and Darbandikhan with a total capacity of 640 MW, which are located in the KRI, were relied on to supply electricity for the provinces of Erbil and Sulaimaniyah, and with limited electricity from Mosul provided to Dohuk province (UNDP and World Bank, 2003). The issue of undersupplied electricity to the public was the biggest challenge of the public entities were responsible for the operation of hydropower stations, transmission, and the distribution of the generated electricity during the 1990s. In 1995, under the Memorandum of Understanding between the United Nations Development Program and the UN Office of Iraq Program, which was initiated by the Electricity Network Rehabilitation Programme for the rehabilitation of the electricity system in Erbil, Dohuk and Sulaimaniyah, funds were provided to reconstruct the electricity network of these provinces of the KRI (UNDP and World Bank, 2003). The program included the procurement, installation, and commissioning of electrical equipment, and the necessary spare parts procurement for the electricity network (UNDP and World Bank, 2003).

At the same time, however, the response to the increase of electricity demand and the development of the electricity sector of the KRI was different compared to that of Iraq after 2003. The KRG could step in to implement reform policies and establish development plans in the electricity sector. In the KRG's formation of the fifth cabinet of the government in 2006, the Ministry of Electricity (MOE) was established according to the law no. 5 of 2006. The MOE was formerly the General Directorate of Electricity at the Ministry of Industry. The MOE organises the three sectors of generation (only state-owned generation power plants), transmission, and distribution. The design of the MOE comprises various central directories to achieve the mission of supply of electricity for the public and the infrastructure projects of the KRI, and the improvement and development of the electricity system. In this regard, the MOE has proposed a comprehensive master plan to achieve the reform objectives of the all sectors including: the reduction of unhealthy demand growth of electricity; improving the capacity of the transmission and distribution systems; working on strategic projects such as Supervisory Control and Data Acquisition system, 400Kv transmission network, and connecting the region's grid to neighbouring countries for future exchange of electricity (The MOE, 2014).

Poor capacity of generation and unpredicted rapid demand growth for electricity pushed the preliminary focus of the KRG to create opportunities for expansion and investment in the electricity generation sector. While the development vision for the economy encourages the government to use PPP projects in the development process of most of the sectors of the economy (The KRG's vision 2020, 2013), the market-based reform of the electricity industry is focused solely on the generation sector at present. The electricity sector was first to experience the Independent Power Producer (IPP) adoption and to establish Build Own Operate (BOO) in 2006 (refer to Section 3.3 for definition of BOO) projects in the electricity generation sector. This has been derived from the substantial investment needed for the expansion of new power plants and the collaboration with the private sector to fill the financial gap in the investment projects for public services and the infrastructure (Lipson, Ali and Al-kazzaz, 2014). The participation of IPPs has contributed to improvements in the electricity supply. In 2008, the electricity generation amounted to a 140% increase in comparison to 2004 (The Ministry of Planning, 2011).

The structure of the industry showed inefficiencies prior to the PPP effort. This involved inadequate investments in the electricity generation projects, transmission sector failures, losses in the system, and problems of consumption bill collection and metering in the distribution sector. Consequently, the reliance on IPP participation could respond to the urgent investment need in the electricity provision service for the region. The KRG adopted the investment law no. 4 on private investment projects as a legislative guide on privately built and operated power plant projects. As the length of the contracts spans over 15 years and the economy has experienced security issues for decades, foreign investment was not significantly brought to the electricity sector. For investors, both the issue of security and the promise of sufficient return were important when it came to long-term BOO contracts. Only local investors have invested in the electricity generation sector. The next section highlights the structure of the electricity sector after the market-based reform in the electricity generation sector.

4.4 Current Structure of the Electricity Sector of the KRI

Although the KRG established the MOE to oversee the electricity sector, the high authority in the KRG, namely the Council of Ministers (COM), has had the overall control over the sector. There is no independent regulatory body in the sector. The MOE organises, owns

and operates the four main systems of generation (only state-owned stations), transmission, distribution and control. The MOE's Dispatch and Control Centre monitors and coordinates the operation of generation and transmission facilities of the KRI's grid. After the implementation of PPPs which tended to introduce private sector participation in the generation sector, the type of BOO contracts allowed the private ownership of the power plants. However, an insufficient competition for IPPs has resulted in existing only few IPPs in the electricity generation sector that supply electricity to the MOE. In addition, the Council of Ministers is a dominant decision maker for the IPPs' selection and has decision making power over the entrance of the private companies in the sector (see Section 6.4.1 for further details on the governance structure of BOO projects and the electricity sector as a whole).

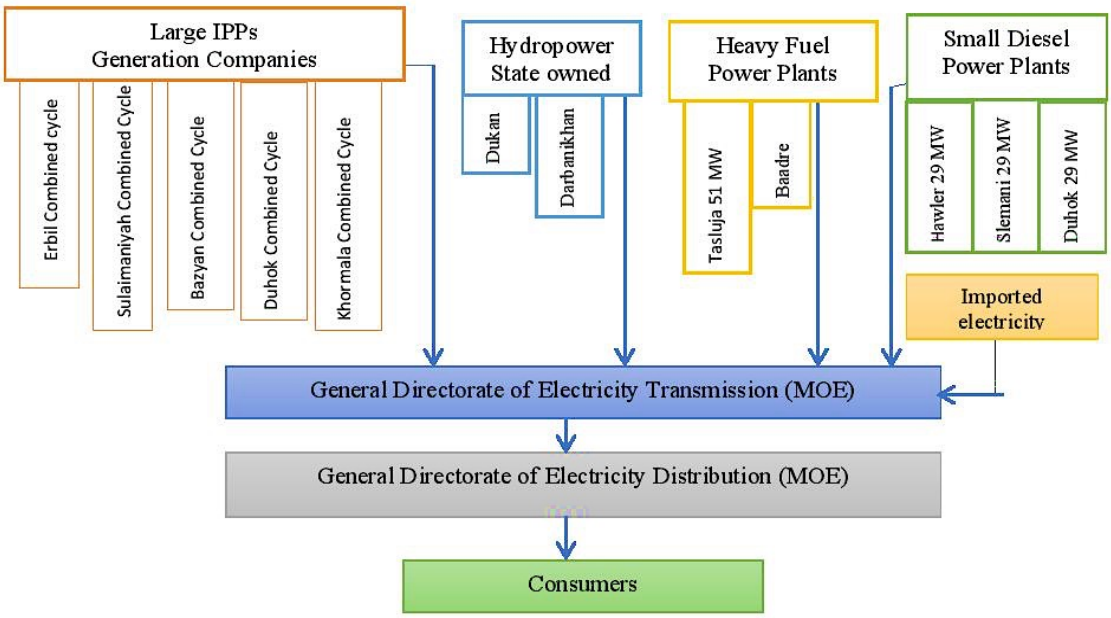
In the following sub-sections, the current structure of the KRI's electricity sector is highlighted. Each sub-section provides details and the statues of the main divisions of the electricity sector involving generation, transmission, and distribution.

4.4.1 Electricity Generation Sector: Supply of Electricity to the System

The generation sector is responsible for generating electricity from a variety of fuel sources, including gas, hydro, heavy fuel, and diesel, which is then fed into the KRI transmission network. As of 2016, there are eleven power generation stations servicing the grid of the KRI. The current electricity system is supplied from four main generation sources, illustrated in Figure 4.3. The electricity supply comes from gas fired power plants (IPPs), state-owned hydropower stations, heavy fuel power stations and other small diesel power stations, which are operated under the management and operation of private companies for a 7-year contracting period. In the current structure of the electricity generation sector, approximately 80% of installed generation capacity is owned by the IPPs. In 2015, from the four stations connected to the grid, the highest generated capacity came from the IPPs, which accounted for 2377MW (KRDCC, 2016). However, the generation output of the stations cannot reach full capacity output due to the difference of actual capacity production rate from the design and the poor generation capacity of state-owned stations (refer to Subsection 5.4.5). As of the end of 2016, according to the General Directorate of Generation of the MOE, the total designed capacity of generation (of all power stations) is 6078 MW, and their operational capacity is 4607 MW. However, the issues of fuel

undersupply to the IPPs' gas fired stations and the expensive alternative fuel consumption have led to shortages of electricity, and have put 40% of IPP generation units out of operation.

Figure 4.3 Supply System of Electricity in the KRI



As shown in Figure 4.3, five IPP power stations supply electricity to the system. At the time of writing, there are two other IPP projects that have been approved since 2015 but have not yet been built: the200 MW Harrir Power Plant; and the 650 MW Zakho power plant. It is shown in Figure 4.3 that there are also two hydro power stations owned by the state, two heavy fuel power stations, and three other small diesel power stations that all supply electricity to the system. These stations are connected to the transmission network, which is owned by the MOE, and the General Directorate of Electricity Transmission is responsible for the management and operation of the system. The transmission network is connected to the distribution network, which is also owned by the MOE, and the General Directorate of Electricity Distribution is responsible to operate it and connect consumers to the network. The details of all current power stations and their installed capacities contributing to improving electricity supply in the system are highlighted in the following subsections. The first four IPP power plants, detailed in section 4.4.1.1 are the selected BOO projects that the current research project focused on to analyse the governance of BOO projects and the electricity sector as a whole.

4.4.1.1 Gas-fired Power Plants: IPPs

The details of these projects are as follows:

Erbil Gas-Fired Combined Cycle Power Plant

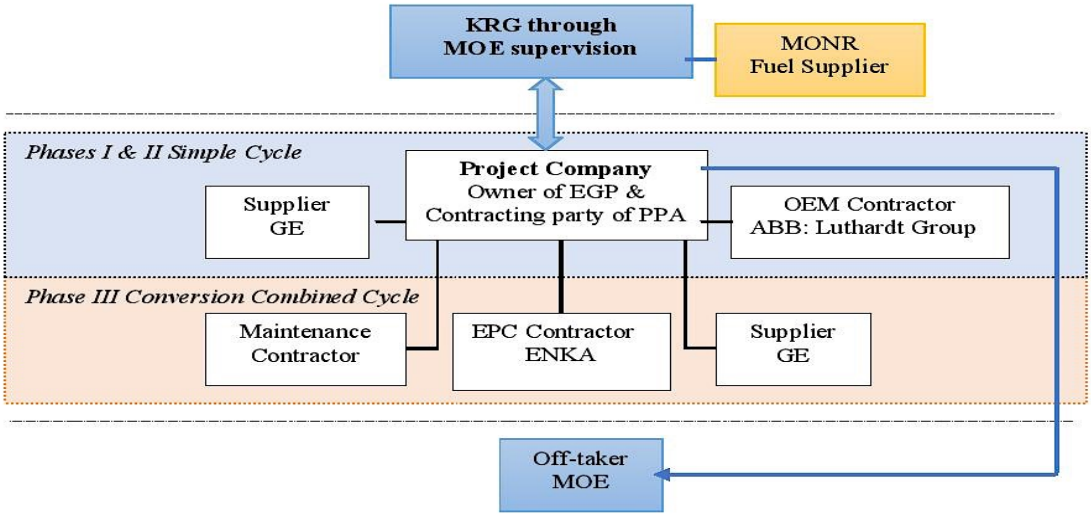
The Erbil Gas-Fired Power (EGP) station is located 22 Kilometers south of the city of Erbil in the KRI. It was built in 2007 merely one year after the investment law was enacted. The project developer company, Mass Global Holding Ltd. (MGH) submitted a proposal to the COM to build the EGP station with the installed capacity amounting to 1500 MW. After a short period, as it was the only investment proposal available at that time and known as the first IPP in the KRI, the MOE signed a 15-year BOO contract with MGH. Under this agreement, the responsibility of design, finance, construction, operation and maintenance, and ownership of the plant is transferred to MGH. Many incentives were extended for the project due to its importance in revitalising the electricity infrastructure in the region. These included the government support to facilitate permit application and land acquisition, commitment to a Power Purchase Agreement (PPA)[7] which secures a fixed capacity charge at US 3.2 cent per kilowatt/hour to 100% availability rate of electricity, support for sourcing equipment, and tax exemptions for 10 years.

This plant contributes over 30% of generation capacity in the KRI and is considered as one of the main sources of electricity in the region. The plant consists of eight Frame 9E GE gas turbines with a capacity of 125 MW each and two GE-C7 steam turbines with a capacity of 250 MW each. The first 8 units can run on natural gas or diesel. The first dual-fuel simple cycle with 4 units began to operate in 2008. In 2011, in the second phase of the project, another 4 units were added and the installed capacity of the plant reached 1000 MW. In Figure 4.4 the details of the project's contractual relationships are highlighted. The plant has been developed and financed by MGH, the project developer company. As shown in Figure 4.4, the MGH signed a contract with Turkish constructor ENKA to construct the plant and covert it from the simple cycle to the combined cycle power plant on an engineering-procurement-construction (EPC) basis. At the simple cycle phase, for engineering and operation management, the MGH relied on international companies and

[7] PPA is a financial agreement between the project developer company that builds and operates the plant and the purchaser of electricity, the MOE.

other suppliers, mainly GE and ABB power companies. The initial capital cost of the project was borne by the private developer. The conversion of simple cycle[8] to combined cycle[9] operation took place in 2012 which boosted the capacity of the station by an additional 500 MW. At the combined cycle phase, for engineering and supply, the MGH relied mainly on GE, as Figure 4.4 shows. The electricity produced in the plant is transmitted through high voltage lines connected to the KRI grid.

Figure 4.4 Details of EGP Project and BOO Associated Contractual Relationship



As in all current IPP projects, the project is backed by a long-term 15 years PPA. According to the BOO contract, the MOE, the Off-taker, buys 100% of the output of electricity generated from the plant. The arrangement of fuel for the plant is by the government. Since the fuel market is dominated by the only exclusive supplier/distributer, the government, the MOE with the Ministry of Natural Resources (MONR) supply fuel i.e. natural gas or diesel to the plant, as Figure 4.4 illustrates. Because of conditions of unsupplied fuel and inability to transmit the capacity generated by the MOE, the MOE still has the obligation to pay at a pre-determined US 3.2 cent per kilowatt/hour for the electricity that the station could produce.

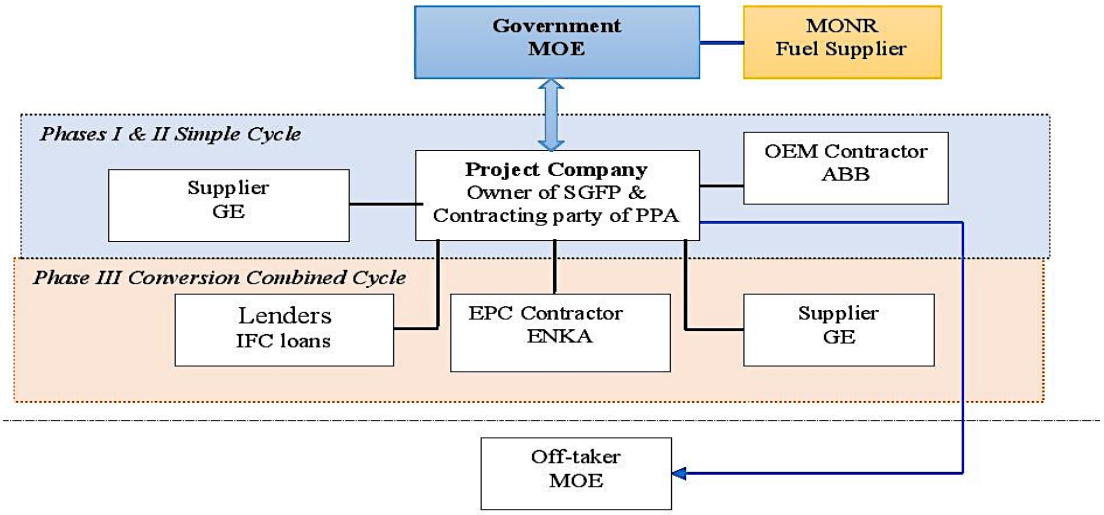
[8] The simple cycle phase of a gas-fired power plant consists of the installation of gas turbines and the use of hot gas to generate electricity.
[9] The combined cycle phase of a gas-fired power plant involves the installation of a combination of steam and gas turbine technologies to generate 50 percent extra electricity from the same amount of fuel as in the simple cycle.

Sulaimaniyah Gas-Fired Combined Cycle Power Plant

The critical need of electricity in the KRG accelerated the establishment of the second IPP by MGH in 2008. The Sulaimaniyah Gas-Fired Power (SGFP) station is located in Chamchamal, 60 Kilometers north west of the city of Sulaimaniyah in the KRI with an installed capacity to reach 1500 MW following conversion to combined cycle. At the beginning of the plant construction, only 750 MW was proposed to be installed but later the contract was extended to 1000 MW. In the first phase of the simple-cycle of the plant, four GE Frame-9E turbines were installed, each with 125 MW. In the second phase, another 4 units of the same type were installed, except for turbine No. 4, which was GE frame 9F. The dual-fuel turbines of this plant are the same type as in EGP which run by natural gas as a primary fuel or diesel as a secondary source. The first phase started operation in 2010 and the second phase started production in 2012. Through 132 KV transmission lines the generated electricity from the plant is transmitted to the KRI's grid.

In the third phase of the project, at the completion of the conversion phase of the simple cycle to combined cycle, the plant's capacity was raised to 1500 MW by using steam turbines from GE, boosting the capacity of the station by an additional 500 MW. This was to make the plant more energy efficient through adding eight Heat Recovery Stream generators and two steam turbine generators with a capacity of 250 MW each. The efficiency of the plant is around 55% after the conversion. Figure 4.5 shows the details of the project's contractual relationships. The project developer contracted with the same companies as EGP. As shown in Figure 4.5, MGH, the developer, signed a contract with ENKA, a Turkish company, on an EPC basis to build and convert the plant into combined cycle technology from the simple cycle. The turbines and other substations were supplied from GE and ABB. At the combined cycle phase, MGH was able to secure a loan of US$ 250 million provided by the International Finance Cooperation (IFC) in 2016. The IFC equity investment and loan was used to complete and finance the conversion of the plant (IFC, 2016). The conversion began in 2013 and was completed in 2016.

Figure 4.5 Details of SGFP Project and BOO Associated Contractual Relationships



As an EGP, this project is backed by a long-term 15 years PPA. Fuel arrangement is the responsibility of the MOE with the MONR i.e. natural gas or diesel. The plant receives natural gas via pipelines from the Khor Mor gas field station, less than one kilometer away from the plant, and diesel is transported by road tankers.

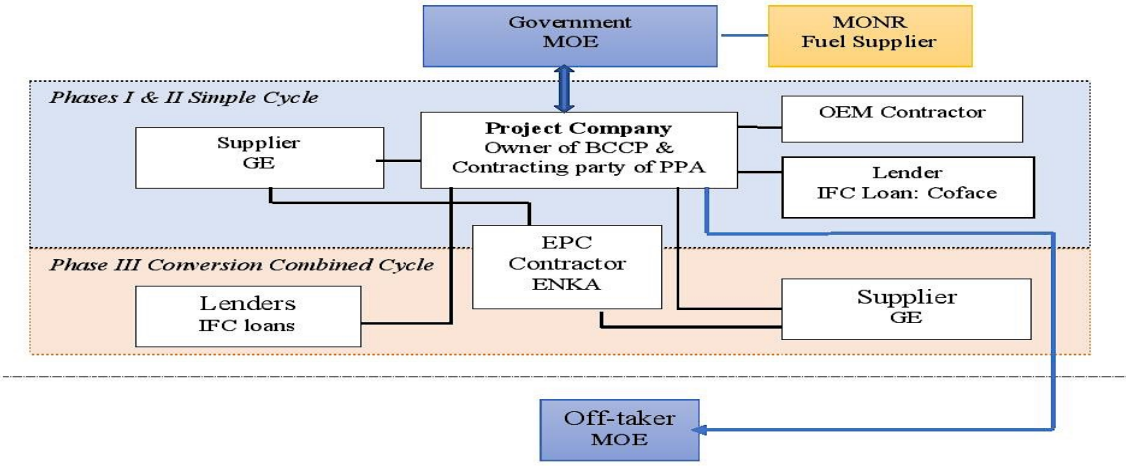
Bazyan Combined Cycle Power Plant

The Bazyan Combined Cycle Power (BCCP) plant was another IPP project launched to contribute to the electricity need in the KRI. The plant is located between Sulaimaniyah and Chamchamal in Sulaimaniyah Province in the KRI. Qaiwan Group is the developer of the plant. In 2013, the company signed a 15-year agreement with the MOE to finance, build, own and operate and maintain the Bazyan power plant. Phase one of the 442 MW natural gas fired power plant consists of four General Electric 9E 3 series gas turbine generators in the simple cycle.

Figure 4.6 shows the details of the project's contractual relationships. In 2014, the project company signed a contract with ENKA, an EPC Turkish company to construct and then convert the plant to combined cycle in phase two. As seen in Figure 4.6, the project company secured the finance needed from IFC via the supported lenders. In 2016, the company secured another two loans totalling US$ 105 million to refinance a part of the investment in the power plant (Michel, 2016). The loan amount of US$ 75 millions was arranged by Deutsche Bank as Mandated Lead Arranger and BankMed the Dubai branch

as co-lender and co-mandated lead arranger, and GE arranged the rest of the loan, US$ 30 million (Michel, 2016). As Figure 4.6 shows, the project developer company supplied turbines and other substations from GE. In the 15-years PPA agreement, the MOE, the off-taker, buys 60% of the total output of electricity generated from the plant at pre-determined US 3.2 cent per kilowatt/hour capacity charge. In the conditions of unsupplied fuel and inability to transmit the generated capacity, the MOE has the obligation to pay at a pre-determined US 3.2 cent per kilowatt/hour of 60% of the electricity that the plant could generate.

Figure 4.6 Details of BCCP Project and BOO Associated Contractual Relationships

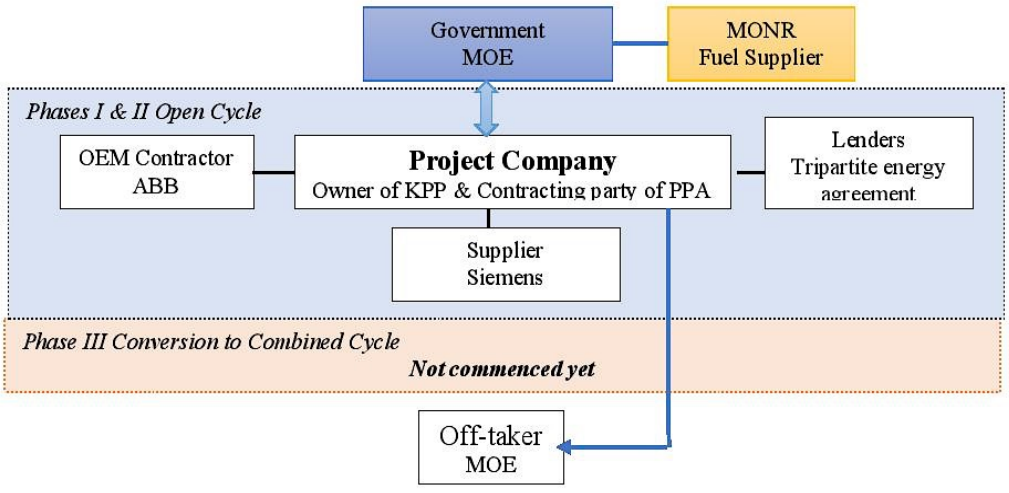


Khormala Power Plant

Having the installed capacity of 640 MW, the Khormala Power Plant (KPP) is located around 25km south of the city of Erbil in the KRI. It is an open cycle project developed by KAR Group. The plant consists of four Siemens SGT5-2000E gas turbines in the first phase and four SGen5-100A generators with rated capacity of 168MW of each 50Hz turbine. The turbines operate by using gas as a primary source from a nearby gas field and light fuel oil as a backup fuel. In phase two, two steam turbines, each with 160 MW, were included. In phase three, two additional gas turbines will be added that can run by gas or Heavy Fuel Oil (HFO). The project company started the construction in 2012. As other IPP projects, under the government strategy with PPP in BOO type, the developer, KAR, operates the plant. The electricity generated from the plant is transmitted through two new 400/132 kV substations to the KRI's grid through the new 400/132kV Erbil Center Air-Insulated Switchgear substation.

Figure 4.7 shows the details of the project's contractual relationships. The construction of KPP was done by KAR Construction and Engineering, a subsidiary of KAR Group. As Figure 4.7 illustrates, several lenders financed the project based on a tripartite energy agreement. Under an active initiation of the Iraqi government in mid 2012, several companies from the Czech Republic and Turkey with the KAR group came together in a tripartite energy agreement, to finance and build the power plant (Power Technology, 2013). An amount of around US$500 million provided by the Czech companies including Czech Export Bank and PSG International and contribution by Turkey's Renaissance Construction (Power Technology, 2013). As shown in Figure 4.7, the project company contracted with ABB for engineering management and Siemens for supply of turbines and other electrical infrastructure for the plant. In 2012, the company signed a US$ 130 million contract with Siemens to supply gas turbines, generators and ancillary systems for the plant. In the same year, ABB was also awarded a contract of US$ 120 million for designing, engineering and supplying electrical infrastructure for the plant (Power Technology, 2013). The conversion of the plant to the combined cycle has been delayed because of threat of an ISIL attack in 2014. As in the Bazyan power plant IPP, in the 15-years PPA agreement, the MOE, off-taker, buys 60% of the output of the electricity generated from the KPP at the pre-determined US 3.2 cent capacity charge per kilowatt/hour. Also, in the conditions of unsupplied fuel and inability to transmit the capacity generated, the MOE has the obligation to pay at a pre-determined US 3.2 cent per kilowatt/hour of 60% of the electricity that the plant could generate.

Figure 4.7 Details of Khormala Project and BOO Associated Contractual Relationships



Duhok Gas-fired Power Plant

The Duhok Gas-Fired Power (DGFP) station is located 35 km north of the city of Duhok in the KRI. The proposal was submitted by the investor Mass Global Holding Ltd. (MGH) to build Duhok power station, a plant with the installed capacity amount of 1000 MW. The MOE signed a 15-year BOO contract with MGH in 2010. Under this agreement, the responsibility of design, finance, construction, operation and maintenance, and ownership of the plant is transferred to MGH. In the first phase of the project, the MGH purchased GE Frame-9E turbines from GE. After the installation of the eighth unit in 2013, the plant started supplying electricity to the KRI's grid. ABB was contracted by MGH as the main EPC. ABB was responsible for designing, supplying, installation, testing and commissioning of the plant. The dual-fuel turbines of this plant are the same type as installed in EGP and SGFP which is run by natural gas as a primary fuel or diesel as a secondary source. The plant's capacity was planned to be raised to 1500 MW after the conversion to combined cycle in 2016. As EGFP and SGFP, in the 15-year PPA agreement, the MOE, off-taker, buys 100% of the total output of the electricity generated from the DGFP at a pre-determined US 3.2 cent capacity charge per kw.

4.4.1.2 State Owned Hydropower stations

In the KRI, there are two hydropower stations: Dukan and Darbandikhan, illustrated in Figure 4.3. Dukan Dam is located 55 km north west of Sulaimaniyah city on the river Lower Zap. The completed station became operational in 1979, and has five 80 MW turbines. Darbandikhan Dam is located 60 km south east of Sulaimaniyah city on the river Sirwan. The dam construction completed in 1961 and the station has three turbines each with 83 MW. In total, the capacity of both stations is about 649MW. However, the lack of maintenance and other technical and operational problems have reduced the actual capacity of the stations only to around 140 MW. This is in addition to drought conditions in the region that further affects the amount of electricity generation.

4.4.1.3 Thermal (Heavy Fuel) Power Plants: Operated by the Private sector

As shown in Figure 4.3, the KRI has two heavy fuel power plants: Baadre and Tasluja. The installed capacity of two Heavy Fuel power plants of Baadre and Tasluja is about 201MW in total. The Baadre power plant is located in Baadre near the city of Duhok in the KRI.

The investor Diyar Poltex Energy built Baadre Power Station, a plant with the installed capacity amount of 150 MW. The MOE signed a 15-year BOO contract with the investor. Under this agreement, the investor is responsible for the design, finance, construction, operation and maintenance, and ownership of the plant. The Tasluja power plant is located in Tasluja near the city of Sulaimaniyah in the KRI. The station was built by the MOE but due to the reason of poor management and maintenance the station has been transferred to the Bakhtiar Group to operate it for 7 years. The installed capacity of the plant amounts to 51 MW. The MOE buys 100% of the total output of the electricity generated from both stations at a pre-determined US 2.8 cent capacity charge per kilowatt/hour.

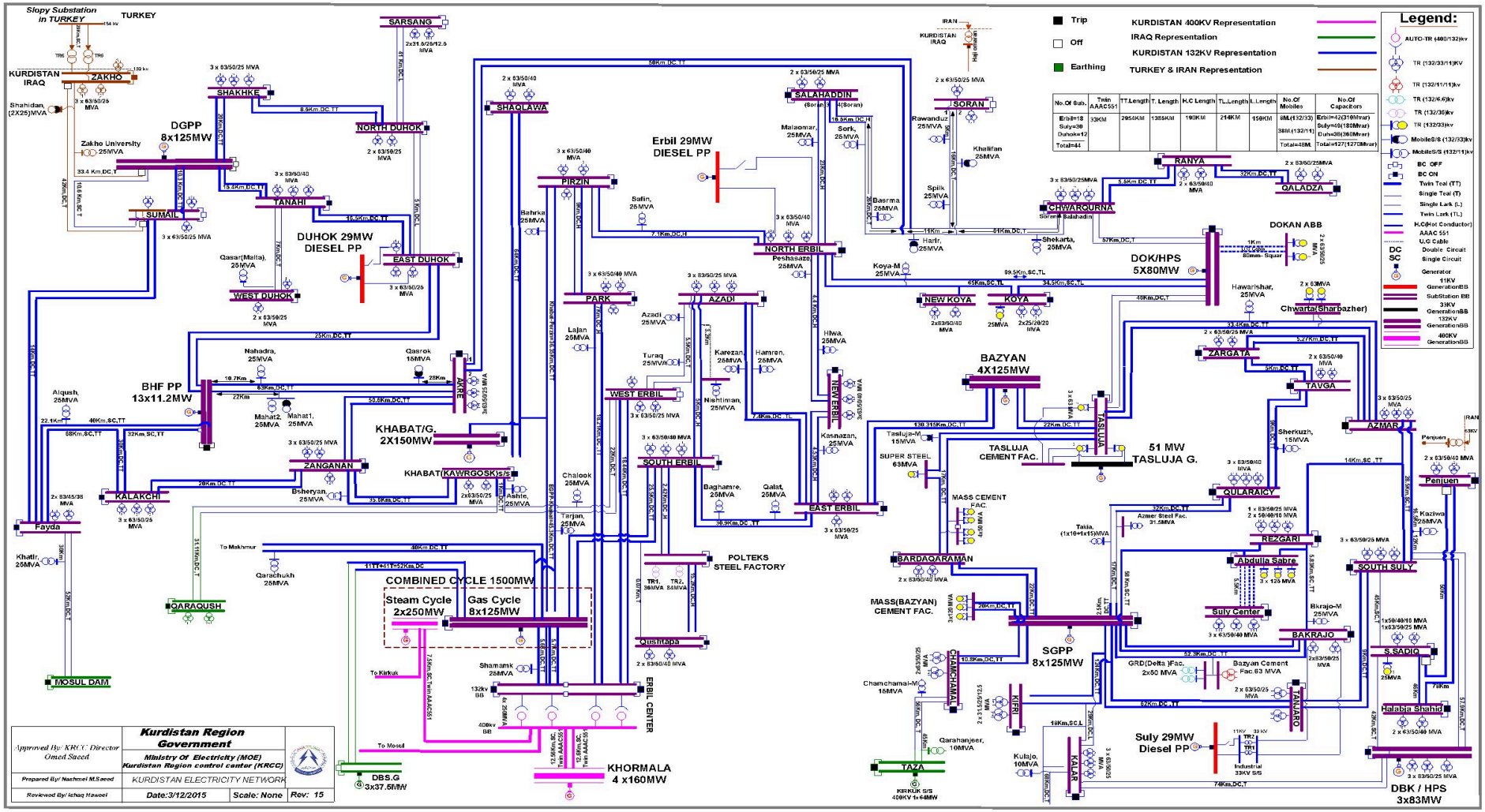
4.4.1.4 Diesel Power Plants: State owned but leased to the private sector

There are three small diesel power plants in the KRI: Sulaimaniyah, Erbil and Duhok. They are operated under the management and operation of private companies for a 7-year contracting period. The installed capacity of each station amounts to 29MW. The MOE buys 100% of the total output of the electricity generated from all stations at a pre-determined US 3 cent capacity charge per kw. The Bander Company operates the Sulaimaniyah plant and the Middle East Company operates the Duhok and Erbil plants.

4.4.2 Transmission Sector

Transmission network receives the electricity generated by the power plants from all sources of generation. The MOE oversees the transmission sector, which has remained completely state owned. The current administrative division of the transmission sector consists of the three provincial directorates of Erbil, Sulaimaniyah and Duhok. The transmission network is managed and operated by these directorates at the MOE. Overall, the transmission sector has transmission lines of 25km 400 kV and 3030km of 132 kV, one 400 kV substation; fifty-seven 132 kV substations; and 52 mobile substations. The total transformers amount to 44,476 units (from 50 kV to 3500KVA). The issue of transmission network overload remains a contributing factor to the decline in the electricity system. The transmission lines cannot transmit all generation capacities as the network capacity is estimated to be around 3400 MW (General Directorate of Generation Report, 2017). Figure 4.8 illustrates the electricity network of the KRI.

Figure 4.8 The KRI's Electricity Network



4.4.3 Distribution Sector

The distribution system takes the electricity from the transmission network and connects households and commercial consumers to the network. The current administrative division of the distribution sector consists of the three provincial directorates of Erbil, Sulaimaniyah and Duhok. These directorates are responsible for managing and maintaining operation of the distribution network and supplying electricity to consumers in the KRI. The network is old, unbalanced, and overloaded. The network consists of 2,872km of 33kv lines, 22417km of 11kv lines, and around 25000km of 400V lines. The rapid growth of demand has put pressure on the distribution network, as the network needs expansion. The distribution network has been struggling with high rates of losses of between 20 to 25% as a result of theft and unbilled consumption of electricity (General Directorate of Generation Report, 2017). There is also the issue that a significant number of consumers do not pay consumption bills to the MOE. According to the MOE's General Directorate of Generation Report (2017), there has been a huge difference between billing and collecting for many years. For example, at the end of 2015, the difference was US$101million, making a highly subsided service provided by the government. To provide solutions for the distribution network problems, the MOE has proposed the expansion and reform in the sector through introducing smart meters to cut down 500MW consumption of electricity by consumers (General Directorate of Generation Report, 2017).

4.5 Conclusion

This chapter introduced the context of the research, the electricity sector of the KRI. The chapter first provided the introduction of the region and the detailed the history of KRI's economy with certain figures about the development of the economy over the recent years. The chapter also reviewed the evolution of the electricity sector and the shape of the current structure of the electricity sector after the implementation of PPP, through BOO type. The details of the development framework for the electricity sector and the engagement of Independent Power Producers (IPPs) in the electricity supply are highlighted along the issues in the management and operation of transmission and distribution networks, which are still owned and operated by the MOE. The next two chapters will examine the analytical framework applied in the context of the KRI's electricity sector and present the results of the study.

Chapter Five
BOO Implementation in The Electricity Sector and Perceived Performance

5.1 Introduction

The potential of the private sector to fill the gap of critical infrastructure and provide public infrastructures/services more efficiently and effectively has encouraged many governments to implement PPPs. The motivation for using PPPs by the public sector is to assure the best possible performance status in providing infrastructure through PPPs (e.g. Henjewele et al., 2014). While given the possible diverse interests and objectives of stakeholders aggravated into a PPP project, the perceived development outcomes of PPP projects might be substantively influenced by the strategic decisions of key parties involved in the PPP. The remaining challenge is to balance the diverse interests of stakeholders affected by the PPP projects to ensure desirable outcomes (e.g. Sharma et al., 2010; Ng et al., 2012).

As highlighted in Chapter Two, the prevailing analyses of the success of PPPs' experience focus on the degree to which the government's public policy objectives in initiating partnerships have been met (e.g. Hodge and Greve, 2007). While traditional performance evaluations tend to utilise these objectives to assess PPP project performance, this chapter argues that the public policy objectives set by governments do not reflect the aims and objectives of the wider stakeholders of PPP projects, and therefore, the performance of PPP should be assessed in relation to wider public aims and objectives (Branston et al.,2006c). This study uses SCF ideas and the concept of 'practice of contracting' (e.g. Reeves, 2008) as its theoretical logic to assess performance and explain the implications of strategic decision-making over PPP projects on outcomes. Hypothesising the strategic failure (Cowling and Sugden, 1999), the SCF asserts that production governance structure is dominated by few elites pursuing their own interests and leaving little opportunity for wider interests to be considered. For this reason, this study argues that a failure to include the aims and objectives of the wider public leads to different impacts on PPP performance.

In this chapter, the presentation of results is organised in respect to the first research question outlined in the introduction chapter: How PPP projects and the electricity sector

as a whole have performed in meeting diverse stakeholder objectives and to what extent are outcomes in the public?

The findings in the chapter are presented in two parts. The first part presents the findings that explore how PPPs have performed in meeting objectives of key stakeholders and what development outcomes have been achieved throughout the process (through the lens that focus on the key project parties' objectives). The reason for that is to focus on exploration of the objectives of whom have been pursued when PPP decisions were made, and what implications PPPs have on the outcomes. The second part address how PPPs have performed in meeting wider and diverse objectives of wider stakeholders and what implications on the outcomes can be identified by focusing on the wider objectives of stakeholders of PPP projects. The performance evaluation here highlights the impacts of PPP projects on various stakeholders to date and which stakeholder group has benefited throughout the main delivery phases of the Build-Own-Operate (BOO) projects, a PPP type applied, in the electricity sector of the Kurdistan Region of Iraq (KRI) context. The data was extracted through the thematic analysis of interviews and focus groups and supplementing secondary data. The themes that are presented in the chapter relate to stakeholder objectives used to assess performance.

This result chapter is structured as follows. Section 5.2 presents the status of the performance of the implemented BOO projects in the KRI's electricity sector and the findings about the impact on the outcomes, which has been aligned with each main theme (objectives). In the section, key performance themes are presented to indicate how successfully BOO projects have performed to achieve their intended objectives and what outcomes achieved. In Section 5.3 the second group of the themes of wider stakeholders' objectives, which are in congruence with the developed performance evaluation framework elements (refer to Section 2.4.2), are presented to indicate how BOO projects have performed to achieve wider stakeholder objectives and what outcomes have been achieved. Then, in Section 5.4, the chapter conclusion is drawn.

5.2 The Key Stakeholder Objectives of Efficiency Met

This section addresses how PPP projects have performed to meet their intended policy objective by examining the choice of key PPP decision makers over strategic objectives of BOO projects. Three themes are identified which show what objectives had been chosen

while making the strategic choice of PPP implementation in the electricity sector of the KRI. The urgent investment needed for electricity generation, better management of electricity generation sector, and timely completion of projects are these objectives that are chosen by the key decision makers. By bringing in the private sector investment in the electricity sector, capacity of generation was increased. The management of the private sector of the generation electricity has led to better management of the generation sector. The objective of quick completion of projects in the generation electricity also illustrates the timely completion of projects. These themes are presented in the following:

5.2.1 Bringing in Independent Power Producers Investment and Capacity Increase

The approach of the government to meet the challenges of the electricity sector efficiency improvement was to increase the number of Independent Power Producers (IPPs) and associated BOO contracts. The majority of the public sector group (PSG) including managers and employees at the Ministry of Electricity (MOE) and the Ministry of Industry and Trade (MOIT), and mangers at the private companies discussed in the interviews that the main value of the IPP framework was the huge investment needed to build the new power plants that were required to alleviate the low capacity of generation. As a senior manager at the MOE noted:

'I think, as a beginning, they (IPPs) have helped the government. In the Kurdistan Region, we had not had sufficient [number of] generation stations and had limited generation [capacity]. The generation now, as for 2016, has increased from only few megawatts to approximately 4000 megawatts. It [generation capacity] has increased a lot which was difficult for the government to achieve [without IPPs]' (S32, PSG)

As the public data indicate, it was estimated that approximately US$5.2bn investment in the electricity sector (17.06% of total infrastructure investment of $30.5bn) was predicted for the period between 2013-2020 in the required development of the electricity sector of the KRI (Kurdistan Regional Government and UNDP, SEINA Report, 2012). It was noted that the IPPs have committed to bringing in the finance to build a number of power plants and to contributing to the demand of electricity (improvement in capacity after insufficient electricity supply to the national grid). The total investment in the electricity generation sector made only by IPPs is specified in Table 5.1.

Table 5.1 Details of IPP Projects

Power Plant	Size	Project Investment Capital (US$)	Fuel Type	Project completion	Status
Erbil Combined Cycle	1500 Mw	45m*	Natural gas/Gasoil	2008	Operational
Bazyan Combined cycle	750 Mw	621m	Natural gas/Gasoil	2015-2016	Completed
Khormala Combined Cycle	1000Mw	1.2bn	Natural gas/Gasoil	2013-2016	Operational *(half capacity)*
Chamchamal Combined Cycle	1000 Mw	1.2bn	Natural gas/Gasoil	2013-2016	Operational
Duhok	1000Mw	1bn	Natural gas/Gasoil		Operational
Harir	200Mw	Not available	*Heavy fuel oil*	2015-2017	Construction
Zakho	840Mw	787m	Natural gas/Gasoil	2015-2017	Construction
Baadre	150 Mw	100m	*Heavy fuel oil*		Operational
Total	6790 Mw	4.72bn	-	-	-

** This amount as stated in 2009 annual report by MOE (representing the cost of simple cycle only)*

Source: Investment Board of Kurdistan (2015) and MOE (2009)

The project company developers have invested approximately US$4.7bn in building new power plants, which is a significant proportion of the predicted investment. The total projected installed capacity of the projects amounts to 6790 Mw, which, when completed (and converted to combined cycle), will be able to supply sufficient electricity to meet the rapid growth of demand. The capability to increase capacity markedly has been attached to the private sector's involvement. As a senior manager at one of the power plants stated,

'If the government started [s] to think about electricity in a good way [capacity improvement], they [the government] should depend on the private sector. Because they have proved that for all these years, more than 8 to 9 years, they failed [to meet] the demand for electricity… but if they give this mission to the private sector, it will be a success' (S13, PCG)

Not many from the general public group (GPG) and the representative stakeholder group (RSG) were concerned about the challenge of more required investment and coverage of the electricity capacity. From the perspective of those from the GPG and RSG who realised the role of the private sector's investment, it was noted that the urgent electricity supply was better fulfilled by the private sector.

The role of the public budget to encourage investment in the electricity sector was also highlighted. However, there was no doubt that the government would not have been able to reach to the same capacity improvement level as the private sector has done, largely due to the latter's better capability. For example, a residential consumer in a focus group mentioned:

'In fact, there was improvement in terms of budget and government revenues, this is why to some extent electricity generation has increased. Perhaps the government could do this [investment] but not to that level [capacity added to the system]. But the private sector certainly did' (RC1.FGER3, GPG)

The BOO arrangement was perceived as a quick response to dealing with the increasing need for more power plants to adding capacity, and it was difficult for the public sector's solely owned stations to meet the rise in need for electricity supply. According to participants from PSG and PCG, the objective of replacing the investment in the power plants by the state for the private sector indicates that a priority was given to improving capacity coverage. However, from the perspective of consumers and other stakeholders' representative group, the concern has been more on meeting the objective of better electricity provision service in addition to the effort of increasing capacity.

5.2.2 Management of Electricity Generation Sector

It is not only private financing that is seen by the government as an advantage brought to the electricity generation sector, but also the sector's better management. The most profound benefits have been, as noted both by the MOE and the PCG interviewees, the quick action of the private companies to bring the necessary expertise to the site whether technical, managerial or financial, the excellent maintenance of the power plants, and the quick solutions of technical issues whenever they happened. As a senior manager at one of the power plants who had previous experience in the public sector commented:

'The private sector is more successful than the government in the management… and maintainability of the operation of the units. As I was in the public sector before, when a turbine shut down or there is an issue, there are complicated routine procedures in order to provide spare parts, purchase, and fix the turbine…. [in the public sector] you might

wait for a long time for a spare part to be provided while the turbine or the unit is not operating. This is in order the purchase [request] to be authorised. Whereas in the private sector it is not like that because they think if this turbine is not running it is a loss of money. Sometimes we [the project company developer] had to bring a machine through a special cargo in order to solve the problem in a short time. This is a big difference!' (S28, PCG)

The operation management of state-owned power plants has always been constrained by government bureaucracies, which has impeded the upgrading of the stations, supply of fuel and equipment/spare parts, and most importantly the allocation of sufficient budget for maintenance. For example, a senior manager at the MOE with more than 25 years of experience stated:

'...For managing the projects, we have an example. We have projects that are public [were run by the MOE]. We have three 29 MW stations in each province. These three stations are public and run by our staff. Each station has 4 units and never more than two units of a turbine were operational for the whole time. Because of spare parts supply problems, purchasing materials, technical issues, we have transferred them to the private sector to operate and maintain them' (S11, PSG)

Furthermore, the efforts of the private sector to solve timely operational problems was frequently emphasised by interviewees from the PCG and the MOE officials. For example, a senior manager at the MOE stated:

'The private sector can manage [the generation sector] in a better and successful way. For example, once in Chamchamal gas power station, a shaft of one of their turbines broke down. For this shaft, through the [efforts] of the company in the US and Europe, they could, in a standard time -72 hours- via a special cargo, provide this big part, which is worth several million dollars. They could bring and get the unit to operate again. The routine and administrative attributes that we have in financing in Kurdistan and the institutional organisation [the public sector] have never let us do this so quickly' (S33, PSG)

The new power projects have been able to operate successfully and reflected the private sector's management and promoted construction and maintenance performance. The project developers consider operational practice important, and particularly so building

maintenance skills, to enhance the quality of the operation of the power plants. This focus has enabled them a better operation management and the maintainability of the power plants without any complication of the kind of hierarchal procedures that exist in the public sector. A comparable example to the public sector's operation management is Mass Group Holding, the private developer of Erbil, Duhok and Sulaimaniyah power plants that is recognised for its involvement in investment in efficiencies and staff training for better maintenance of the plants, e.g. regular prime maintenance in decreasing scheduled time for continuous generation. As a senior manager at one of the power plants stated:

'For sure, the management is better because the private sector gives importance to generation [capacity provision] and does what is necessary for this [consistent generation]. But in the public sector, this has not been given importance. When a thing is damaged there are many routine procedures to be conducted and to get these things approved [purchase of spare parts to solve the operation issue occurred]. At that time [while waiting for approval], there is no generation for this long period! In maintenance also, for example, one of our maintenances is prime maintenance. I worked in the public sector, if this has been done or scheduled for one month [in the public sector] here we do it in 10 days. This is a big difference' (S29, PCG).

Not many participants in other stakeholder groups concurred with the primary objective of better management to such a great extent as the interviewees from the PSG and PCG. According to those in the GPG and RSG, the flexibility of the private sector regarding better operation management has been a remedy for the weakness in the public sector management of the power generation sector. They believed that private project developers always seek to minimise operation problems because of the prospect of profits that can be secured through continuous generation.

5.2.3 Timely Completion of Projects

Another challenge to meet the efficiency objective of the electricity generation sector was the fast completion of the power plants. Participants from both the public sector and the private sector concurred with the view that the BOO model has contributed to a faster delivery of power plant projects. Generally, the full BOO project procurement is recognised

to be without the involvement of any routine administrative procedures. For example, a senior manager at the MOE stated:

'Overall, the private companies [participation] have benefited the government. It [their participation] has increased the generation capacity because those projects that are executed [constructed] by the private sector are faster as they allocate money to spend, no issues of routine procedures and budget [constraints as in the public sector], more expenditure to run the work and be faster. They have all these. these contribute to the faster completion of the power plants and start generation' (S18, PSG)

There was acknowledgment by the PCG and the government officials, of crediting improvement in time performance and quality of operation in particular because of the timely actions of the project company developers. It was perceived that the fast completion of the plants would not have been achieved if the traditional public procurement method had been applied. As a senior manager at the MOE stated:

'At that time [prior to IPPs], we had 649Mw from Dukan and Darbandikhan stations at their full capacity. We had huge gaps in capacity and generation. The issue, at this time, was if we would start the construction of thermal power plants, it would take long time by the public sector, at least 4-5 years. However, the private sector can make it in a one-year timeframe' (S11, PSG)

Although not all the current projects are at the operational phase to respond to the electricity growth needed in the region, the BOO model has generated an appreciation of fast delivery with higher installed capacity in the electricity generation sector. Most of the managers and employees from both the MOE and the private companies perceived fast project completion through the involvement of the private companies. Furthermore, this also involves the intention of the private sector to complete the projects on time in order to secure profits. As a senior manager at one of the power plants commented:

'You know, the private companies take benefit from this work! There is a lot of income coming to the private company, so this is why a work like this – [a] huge project like the power station – they [companies] will do it very fast and they will put it on service very fast to get money and also to let the power to be available for the people' (S30, PCG)

The project developers are responsible for design and technical documentation subsequent to the construction, operation and maintenance of the power plants or as IPPs, the scope of their work ranges from the design to operation of the plants. The approved projects under BOO contractual arrangement did not experience complex negotiations and lengthy tendering process. Subsequently, the contractual arrangement from proposal acceptance to financial close and end of construction phase indicated significant time saving for the government. The project developers, through a turnkey contractual agreement, allocated the construction work to Engineering, Procurement, and Construction service (EPC) contractors. The EPC contractor took responsibility for delays, design problems, providing materials and resources. Therefore, the challenge of the EPC contractors was to keep to the fast-track project schedule. For example, a senior manager at the EPC contractor company of one of the power plants stated:

'This kind of energy groups [IPPs] are all in the same manner. [They] have fast track completion dates. So, tight schedules. There is a lot of demand in Kurdistan region for electricity so the projects' duration is so limited [short]' (S9, PCG)

To complete the project with less delay and speed up the construction phase, the EPC took several actions. As a senior manager at EPC contractor company commented:

'We have so many types of instruments to speed up the process. We increased manpower. We decreased transportation deliveries we use air cargos for the delivery of certain key elements. We do not use land travel just air cargo, then we speed up the engineering process…. We use night time shifts to increase man power' (S9, PCG)

However, the project developers gained experience and exploited the skills of EPC contractors which have resulted in better project arrangements for faster delivery. This happened as the phases of the projects progressed. Few of the initial projects faced delays at the construction phase of the simple cycle phase of the power plants because of material supply delay and contractual issues with the contractor companies. As a senior manager at one of the power plants commented:

'So far, what we have worked on has improved from one stage to the other. In this station... the first four turbines of the simple cycle were not installed on schedule. It was delayed…

the reasons for this were contractual issues and materials that were not supplied in time. We had problems with contractors that executed the construction… but in the second phase, when we installed more turbines, we completed within the time schedule… Because we had got experience ourselves. We could set the contracts in a way that enforced the contractor and collaborated with them to complete in time' (S28, PCG)

The merit of fast project delivery can be articulated in the reduction of time overruns, which is associated with a greater knowledge as the project's stages progressed (Raisbeck et al., 2010). While according to the public sector, the primary challenge of fast project completion is better achieved under BOO arrangements and the private sector's actions to speed-up construction of the plants, the consumer and other stakeholder groups do not prioritise this as a principal performance objective. The GPG and RSG did not exert the fast completion of projects as one of the criteria in evaluating the performance of BOO projects. The time attribute of BOO projects has been given credit most of the participants from PSG and PCG because of better knowledge gained by the project developers and a turnkey contractual agreement with the EPC contractor that minimised time overruns.

5.3 Ignoring Wider Objectives of Stakeholders

In this section, four main themes represent the key findings that indicate how PPPs have performed in meeting wider and diverse objectives of stakeholders and identify implications on the outcomes by examining performance in relation to wider stakeholders' objectives, which are identified in the evaluation framework developed in section 2.4.2. These themes are: operating service efficiency indicators, job opportunities and local development, consideration of environmental impacts, and service accessibility.

5.3.1 Operating Service Efficiency Indicators

In this sub-section, the theme is grouped into 5 sub-themes to show the indicators of the operational efficiency performance status and to highlight the actual impact of BOO implications on the operational efficiency of the electricity sector outcomes. The theme pertains the impact of ignoring these wider stakeholder objectives on the performance by examining the perception of stakeholders of the projects.

5.3.1.1 Cost of Service Provision

All stakeholders' groups, with the exception of high officials in the MOE and senior managers at the private companies, perceived that for the government, BOO projects have led to costly electricity service provision. Public sector entrance into long-term agreements has not assured higher level of service at a reasonable cost. Therefore, it was perceived by most of the MOE employees and employees (engineers) at the private companies that the projects have not performed to meet more efficient electricity service provision. Similarly, many consumers, provincial council members, members of the Investment Board and other affected stakeholders agreed that the state incurs higher costs through the payments made for the service provided by the IPPs. Table 5.5 lists a sample of interviews and focus groups quotes from all stakeholders' groups synthesising the overall elements of costly service provision for the public sector and its implication for public expenditure. These elements make up the factors that have led to high electricity provision cost, and are introduced in the following sub-categories.

1. Pricing of Power Purchase Agreement

It was perceived by the interviewees that the pricing of the unitary charge of the service is a downside that has impacted the financial resources committed by the MOE to the BOO projects. The Power Purchase Agreement (PPA) payment makes up a huge part of the relative cost per unit of electricity purchased from the operational BOO projects. Under the BOO deal and 15 year PPA, the exclusive purchaser, the MOE, undertakes the purchase of electricity and pays for a set amount of electricity to electricity generation project companies that is subjected to availability rate regardless of whether this amount of electricity is actually taken by the MOE (i.e. take or pay obligation in power financed projects). For all IPPs, a fixed capacity charge at US$ 3.2 cent per kilowatt/hour is secured to the availability of 60-100%. Table 5.3 shows availability payments (guaranteed payments to the IPPs for electricity could be generated but not transmitted to the national grid by the MOE) stream in huge amounts to the investors beside the payments for actual electricity (in kilowatts/hr.) transmitted to the grid. For example, in 2009, approximately US$15.3 million paid by the government to the investor of the first IPP in the region of at US 3.2 cent of the availability rate secured at 100% of the total installed generation capacity, as agreed in the Pay or Take obligation with the IPPs. According to the Take or

Pay agreement, if the MOE could not transmit electricity to the national grid because of undersupply of fuel and transmission system failure or any technical issues, the government pays the same US3.2 cent per k/h as a compensation for the electricity produced but not transmitted.

Most of the interviewees at the RSG, GPG and the MOE employees agreed that the absence of competition enforced the government to accept a high PPA price. As an advisor at the MOE stated:

'For the private (involvement), there should have been strong competition between a group of companies and not one or two [the only few numbers of IPPs in the energy market] in order to lower the cost and the price [PPA]. But we did not have this!' (S35, PSG)

It can be concluded that PPA is favourably priced in the interest of the private companies. With only few IPPs entering into the electricity market, the price agreed of PPA was based on negotiations between the MOE and the investors. A senior manager at the MOE in the discussion about pricing the PPA supports this by commenting:

'For the first contract…, It was 2.8 not 3.2 [US cent]. Later, the investor tried and asked for an increase, claiming for extra expenses, and then it became 2.9 [US cent]. [The investor] submitted the third request, bringing the examples of electricity prices in the neighbouring countries and claiming expenses. A committee arranged for this and studied [the request] and with the recommendation and approval of the Council of Ministers, it became 3.2 [cent]. This is from 2009 and has become fixed and for other contracts signed we have not changed and stay fixed' (S16, PSG)

This particularly was due to the unavailability of thorough feasibility studies at the early or initiation stage of BOO implementation and no force of competition in the energy market. An advisor at the MOE noted the importance of a feasibility study by stating:

'Every project, if you do not conduct a feasibility study you are going to fail, you will not benefit. For every project, you should determine how much economically feasible it is … for strategic projects, this [expenditure] is huge! It is the strategy of the MOE… this is a problem honestly. It is not logical to spend all this money' (S35, PSG)

Interviewees associated the absence of competition with the quality of contracting of the procurement process (see Section 5.4.6). Even though other investors have shown interest in entering the electricity generation market and offered a lower PPA price, the current IPPs have had a guaranteed US 3.2 cent per kilowatt/hour of electricity generated. A high representative of one of the branches of the Investment Board commented in an interview:

'The negative side is the pricing [the PPA] by the companies. Perhaps, it is an unrealistic price to give [the acceptance of the price of PPA by the government] to companies…. Because other investors submitted for a lower price saying, I can by this price [lower PPA price] and ready to provide [the electricity capacity] at this price' (S37, PSG)

According to the data made available by the MOE, the purchased electricity payments have been in increase since the first IPP supplied electricity to the national grid in 2008. In Table 5.4, the amount of electricity purchased from the IPPs is listed along payments and the availability of payments for each year. In 2008, the government purchased electricity at 2.9 US cent for per kw\h from IPPs. The cost of electricity purchased by the MOE was approximately US$31.2 million, excluding fuel bills and other administrative costs. Later, the PPA increased this to 3.2 US cent in claim of the investor's incurring high costs. The same PPA applied to all BOO contracts. However, after 2014, the government was unable to fully pay the project companies because of a suspended budget by the central government of Iraq. In addition, the availability payments have been suspended for the same reason, as shown in Table 5.2 by the figures 'zero'.

Table 5.2 Amount of Purchased Electricity and Availability Payment by MOE, 2008-2015

Year	Amount of electricity Purchased (in Kw\h)	Purchased Electricity payment ($US)	Amount of availability of electricity in (kw\h) (Not transmitted)	Availability rate payment ($US) (Take or Pay)	Total payment ($US)
2008	1,075,839,200	31,199,337	-	-	31,199,337
2009	4,660,877,500	112,449,309	499,553,437	15,302,090	158,046,344
2010	6,488,652,056	207,636,869	412,898,753	13,212,744	220,849,612
2011	11,675,613,600	373,619,634	2,093,576,877	440,614,095	814,233,729
2012	14,481,637,266	463,412,393	2,908,777,581	556,493,275	556,493,275
2013	15,884,028,800	508,288,922	2,844,520,130	91,024,644	599,313,566
2014	17,412,370,300	557,196,714	2,223,587,599	71,154,803	628,351,516
2015	18,287,220,360	559,004,972	0	0*	559,004,972

* (0) indicate *availability payment has not been paid since budget suspension by central government*

Source: Finance Dept., MOE (2016)

2. Excessive Contract Obligation: Fuel Supply Costs

The participants in all stakeholder groups frequently mentioned fuel supply costs because of the perceived excessive contract obligation on the government. Fuel supply is the sole responsibility of the electricity purchaser, the MOE. Unlike IPPs in other developing countries, project developers are not engaged in another long-term agreement for fuel supply in the KRI. The type of fuel to be supplied by the MOE is specified as natural gas and/or gasoil, as driven by the design of gas turbines (run by dual-fuel: natural gas as main fuel and gasoil as standby). For each GE Frame 9 turbines, the units that work with gasoil, the MOE through Ministry of Natural Resources (MONR) should supply 850,000 Litre/24hrs of gasoil. For those units of GE Frame 9 if operated with natural gas, the MOE should provide 36 to 37 ft^3/24hrs natural gas for each unit (General Directorate of Electricity Generation Report, MOE, 2015). In case of all increase of fuel cost, the state is contracted to take it.

For the current BOO projects, the fuel provision obligation incurred additional costs for the government. Table 5.6 shows quotes from all stakeholder groups that were candid about their perception of fuel supply obligation. As an employee from the private sector explained, the cost is incurred because of the contract that is intended to serve the investors' interest:

'The nature of the contract is such that it is in the interest of the investor, it [the government] provides the fuel for the investor. [The government] gives fuel and then, according to the contract, comes to purchase electricity, which is expensive' (S6, PCG)

However, to balance the interests of the BOO parties, it was perceived by most of the PSG interviewees that, in the contracts, the fuel obligation could have been passed on to the private sector in order to minimise fuel costs for the government. For example, a senior manager at the MOE stated:

'I am with giving these incentives to the private sector. However, these contracts should be re-enforced again in a way to be in the interest of both the public and private sectors. We should not allow the private sector to lose. Sure, they can benefit but their [private companies] profit should be made reasonably. That is not to allow the public sector to lose.

Now, the government has not benefited from the fuel provision [obligation]… the contracts could have been agreed with provision of fuel on the private sector' (S25, PSG)

The cost per unit of electricity to be purchased from the IPPs has been varied due to fluctuation of fuel price, amounts supplied, and the availability rate payments that is sometimes paid because of undersupply of fuel to run the units, and the inability to transmit the generated electricity to the national grid (see Table 5.3 in subsection 5.4.4.1). Along this, the MOE also has administrative expenditures. As for 2014, the MOE had approximately US$ 200 m administrative expenditures (Report of cost analysis, MOE, 2015). The overall cost was US$3.4 billion. The cost of per kw/hour of electricity was US$ 15.17 cent for the government. In 2009, the cost of per unit of generated electricity by using gasoil was US$14.5 beside the capacity charges and other administrative costs for the MOE (Planning Department - MOE, 2010).

At the beginning of the BOO contracts, the fluctuation of fuel price has not been considered. During the period of the contracts, changes in fuel price have been absorbed by the state. A residential consumer from the general public group in a focus group, asserted the criticality of this issue:

'*They [government officials] have signed these contracts perhaps intentionally to use huge amounts of the public budget to benefit the companies. For example, now [the government] purchases gasoil for 1250 ID [per litre] while you can buy in the local market for 475 ID [per litre]. There is this big difference, why? Because it is a result of not considering time [considering fluctuation of fuel price over the contract period], perhaps at that time [of the contracts approval] it was 1250 ID but with time they had to consider that the price will get lower and this would not have led to taking this big amount of the public budget'* (RC2.FGSL1, GPG)

The risk, which is of fuel supply, is assigned to the government because of its focus of the government on the quick supply of electricity rather than on strategically determining the costs of service provision. For example, a manager at one of the branches of the Investment Board stated:

'The risk of depending on gasoil, billions of litres of gasoil to be used, is all money [cost on the government] ... all the machines installed [by the investor] quickly and [the government] provides fuel and then [the investor] gives you electricity. This is temporarily to provide a quick solution from a strategic perspective for that time when the electricity provision was bad. These [power stations run by gasoil] are not strategic' (S41, PSG)

Further, it was perceived by all stakeholder groups that lowering the fuel cost could be achieved when the natural gas fields are developed and the natural gas transmission network is expanded. According to opinions by the public sector interviewees, the investment of private companies in electricity generation has not met the expansion of the natural gas network necessary to help the domestic procured natural gas supply alongside the addition into the system of new combined-cycle gas-fired power plants. It was noted also that the capacity of the transmission network to minimise loads (more lines and sub-stations to be added) was not improved. The poor investment by the public sector was perceived to have led to reducing the capacity of generation (not all stations connected fully to the natural gas pipes) and to paying extra fuel cost instead of natural gas. For example, the big projects with 1500Mw capacity of generation are mostly running half of their turbines because there is not enough gasoil to run all turbines. As a mayor of one of the affected areas near a power plants commented:

'The main mistake was not expanding the Kormor wells that would have helped Dana Gas [the private company involved in natural gas agreements with the government] to expand natural gas connections to the station and then sell it…. The price of gasoil is fluctuating but the price of natural gas is almost static [impact of fuel price on fuel provision cost on the government]' [S52, RSG)

The Kurdistan Regional Government (KRG) has had plans to develop natural gas and oil reserves and facilities through the private sector involvement. Currently, the KRG has certain agreements with local and international energy companies to develop the fields and expand capacity pipelines to serve the domestic market and implement gas export projects. Most companies are responsible for the development, processing and transporting natural gas supplies to the KRG. The potential development of world class natural gas fields in the region, for example Miran and Bina Bawi by Genel, is expected to result in rapid production by 2019 (Roberts, 2016). However, awaiting several investment project

decisions, appraisal and development of more reservoirs in the region, and the construction of more transmission pipelines have resulted in less rapid natural gas outputs stopping KRG to supply sufficient natural gas to the power stations. The intended growth of production might happen after several years from now, but until these developments take place, the government is expected to operate the BOO projects less cost-effectively.

3. Electricity Price and Impact of Subsidised Selling Tariff Structure

These BOO projects are credited for not having inflicted the cost of electricity on consumers. However, for improving operational efficiencies, returning some revenues to the government is thought by most of the stakeholder groups to be important and viable by revising the price of electricity. Most employees, managers and advisors at the MOE and the representative of the Environment Board thought that the selling tariff needs to be revised to relieve some of the government's costs incurred from service purchased from the IPPs. As a senior manager at the MOE stated:

'The demand is growing ... and we [the public] consume all the loads [of generated electricity]. Therefore, the government should revise the selling [tariff] of electricity and revise the contracts' (S12, PSG)

There has been no change in the pricing of the selling tariff structure to cover the cost of the service. To protect all consumers, the selling tariff, which was last revised by the government in 2009, is kept artificially low. Table 5.4 shows the administrated tariff rates set by the MOE along the consumption groups. The tariff rate for household consumption up to 450 kw\h is around 15 ID (approximately 0.0125 US cent), these pricing rates are gradually structured with the rates increasing to 200 ID for high consumption. For the commercial group of consumers, the same progressive structure is followed but with much lower tariff rates. Up to 600 kw\h is around 25 ID (approximately 0.021US cent) with a tariff rate of 90 for the highest consumption which is less than a high household consumption. Low-priced tariff rates apply to other categories of consumption such as agriculture and public places, and it is set at roughly 30 ID and 60 ID for others. This is seen to protect the consumers from sudden increases. An acceptable tariff level would minimise social and public oppositions (Ke et al., 2010). However, it was noted by most of the stakeholder groups that the increase in the cost of supplying electricity service is left

solely on the government. To improve the performance of the electricity sector and reduce the government's fiscal burdens, it is suggested that a systematic rationalisation of tariffs within the electricity sector reform is necessary (The World Bank, 2016). With low returns from associated consumption bills, the service remained highly subsidised by the government.

Table 5.3 Electricity Pricing and Tariff Rates in the KRI (last revised in 2009)

Residential			**Commercial**			**Industry**	
Consumption (Kw\h in a month)	Consumption unit	Price	Consumption (Kw\h in a month)	Consumption unit	Price	Consumption (Kw\h in a month)	Price
1-450	450	15	1-600	600	25	0.416KV	60
451-900	450	20	601-900	600	35	11KV	50
901-1500	600	35	901-1500	600	50	33KV	30
1501-2100	600	60	1501-3000	1500	60	132KV	20
2101-3000	900	75	3001-5000	2000	80		
3001-5000	2000	150	> 5001	----	90		
>5001	----	200					

Source: Planning Dept., MOE, 2015

Even though for most PSG interviewees, restructuring the selling tariff is an important consideration, the consumers themselves agreed that cheap electricity encourages consumption (the electricity demand is growing fast). As a residential consumer in a focus group noted:

'The electricity [consumption] in this region perhaps is triple times higher than in another country or than in three countries [in total]. The distribution is not even and people do not consume appropriately because electricity is cheap' (RC4.FGSL1, GPG)

Revision of the selling tariff is thought by the GPG interviewees to lead to healthy consumption that would lead to lowering demand and to better electricity provision. As another residential consumer added:

'Since the price of electricity in this country is low, this is a problem. Perhaps if they [the government] increase the electricity price people would consume it appropriately or use it less…. In fact, the cheap price is in my interest. The consumption [bill] might be increased from 30000 ID to 60000ID… but I think better to pay 60000 ID to the government to have 24 hours electricity' (RC2. FGSL1, GPG)

While most of the consumers agreed with the view of the public sector participants, they perceived that the income of the households should be considered and a structure should be applied that protects the consumers. For example, a high representative of the Environmental Board noted:

'There should be a revision of the pricing of the electricity [selling tariff structure]. The price should be in a way that is cumulative [high consumption to be associated with higher price] …. By [implementing] this [cumulative structure] those [households] who have higher income and consume more electricity, should pay a higher price' (S43, PSG)

Meanwhile, there needs to be a better collection bill system, as not all consumers pay fully consumption bills in advance. The service provision cost has not been adjusted with the low overall revenue made. According to the MOE data, the total revenue (from bills collected) in 2013 was approximately US$250,187 while the amount paid for purchased electricity was US$606 m. In 2015, the MOE only collected approximately US$ 269 m while the payment only for the electricity purchased was US$718 m. There is a wide recognition by most of the interviewees from the stakeholder groups of insufficient government revenue from the electricity sector.

The World Bank has recently begun to collaborate with the MOE officials on engaging the private sector in the distribution sector as well. This is not only to improve service quality (lowering losses in the system) but also to better billing collection through management by the private sector. According to all stakeholders' groups in Table 5.5, the high expenditure and very low revenue return for the MOE can be addressed by the revision of the pricing of the selling tariff while protecting a low service price to consumers, and the revision of electricity purchasing price from the IPPs.

Table 5.4 Factors Related to Inefficiency of Service Provision

Groups	Unitary charge (PPA) (contributing to Cost of Elec. per unit)	Government obligations	Coverage of service cost (Government Revenue)
The Public Sector *(employees)*	*'In general, the prices we hear, the price for electricity to be purchased from the investors, in my opinion, is very high'* (S11, PSG)	*'The high cost on the government is fuel provision…. The strongest government with good budget cannot bear this generation system we have. Until now we use gasoil! [Cost occurred for fuel provision]'* (S18, PSG)	*'The cost is too high… the money is paid form the public budget… the system we utilise is we pay fuel costs for producers in advance and purchase the electricity from them and not supported by the public even 30% is not returned from people for actual [electricity supplied to them']* (S26, PSG)
Consumers	*'These companies generate electricity and sell it to the government for very high price, if the government shut down the company and purchases it from Iran it would be much cheaper'* (RC3.FGSL1, GPG*)*	*'The issue is not with giving the sector to the private sector, the issue for the people is with the contract with the private sector. The government purchases fuel for 1250 ID per litre so the cost on the government rises which means this is the problem'* (RC2.FGSL1, GPG)	*'The problem comes from not paying [consumption bills] … many rural areas are not paying [the bills]. It is only the cities [consumers] that pay [bills] in a normal situation not in a situation of now [financial and budget deficit] … the government prior to this issue spent 6 billion dollars but the return was only 150 million'* (RC1.FGER2, PGP)
The Private Companies *(Internal stakeholders)*	'*The government purchases generated electricity from the investors at a high price… in an ideal situation our public budget is 13 Billion in which ¼ goes to electricity'* (S6, PCG))	*'I think it is necessary to revise the contracts and the obligations especially fuel consumption and purchase [PPA]'* (S3, PCG)	*'People see the government as their parents. They need jobs from the government. They need everything [electricity to be provided to them with no payment] from the government. The government and government'* (S21, PCG)
Others **(trade unions, provincial councils, etc.)**	*'The negative side is the price of electricity payment for the companies, perhaps it is an unrealistic price* (S37, RSG)	*'[The investor] depends on the government to provide the fuel. These contracts are so wrong in that the government has to provide fuel that costs a lot [on the government]'* (S45, RSG)	*'It [electricity provision] has improved while the reason for not being successful [BOO projects] or a weakness or a shortage here is citizen's awareness [consumption bills]. Until now, many people have not been affiliated to see the consumption of electricity [in order to] return money for the government'* (S51. RSG)

Sample quotes from interviews and focus groups

5.3.1.2 Quality Public Service Provision: Demand Coverage and Reliable Electricity

The most mentioned impact of BOO implementation is on the quality of electricity service provision. With the exception of views held by public officials and most of the private sector managers, other interviewed stakeholders were candid about their perception about the reliability of electricity provision. The consumers frequently reported unreliable electricity provision and the inability of the government to achieve quality service provision within BOO framework. For example, a residential consumer in a focus group commented:

*'In the middle of summer when you need electricity, you see at the middle of the day, starting from 11 am to 2-3 pm [at peak of seasonal loads], the electricity is cut. So, it comes to local generators and these are not capable … so they have not been able to make the electricity provision better' (*RC1.FGSL1, GPG)

The interrupted service was the result of less capacity generation than required. As the government could not supply sufficient fuel to the stations, their generation capacity declined. A senior manager at the MOE illustrated the unreliability of electricity provision service and the undersupply of fuel with an example at one of the power plants:

'For this project [Khormala power plant], the government has to provide fuel to them to operate it but until now they have not been able to. One advantage [of involving] this company is it operates in the field of oil in which [the company] could operate partial [capacity] of the plant… because it has completed [the company wanted to operate the plant] … its capacity of generation is 640 Mw but because fuel has not been provided to them, the generation is not consistent' (S17, PSG)

The data from the MOE supports the unreliability of service (by looking at electricity interruptions). Table 5.5 shows that the load shedding in hours has not seen a huge reduction even with more BOO projects going into operation. For example, in 2008 load shedding was 16:41 hour on average per day, while demand was 1,889 Mw. In 2015, it has decreased to 05:31 hour on average with a demand of 5353 Mw.

Table 5.5 Average of Load Shedding (2006-2015)

	Load Shedding (hrs.)			
Year	Duhok	Erbil	Sulaimaniyah	Average KRG
2006	05:04	16:53	16:30	12:49
2007	10:24	18:23	17:05	15:17
2008	16:37	17:07	16:19	16:41
2009	15:40	09:18	09:11	11:23
2010	08:44	07:19	07:28	07:50
2011	04:07	04:44	04:21	04:24
2012	01:53	02:44	02:23	02:20
2013	01:26	01:49	01:29	01:34
2014	02:20	03:29	03:18	03:02
2015	05:38	05:33	05:24	05:31

Source: Data Summary from Kurdistan Region Dispatch Control Centre (2016)

It was noted by interviewees at the RSG, consumers, and employees in the private sector as well as public sector interviewees that the public sector has not put plans to take actions to effectively provide a reliable service of adding capacity to the system. This also involves delaying transmission sector development projects, solutions for healthy consumption patterns, and minimising loads on the transmission system. For example, a residential consumer noted:

'Electricity provision is not only included in the generation but the transmission and distribution. There are many errors in the distribution which lead to electricity wastage which there are systems to solve but these are not used here' (RC2.FGSL1, GPG)

There has also no renegotiation taken place within the BOO framework to reallocate market risk (i.e. that the regular undersupply of fuel by the state has caused stations to shutdown turbines or run half of the units to generate capacity). This obligation has implications for the quality of the service. For example, as a member of a provincial council put:

'We need approximately 4 to 5 thousand (megawatts) electricity daily. [The government] needs to build more power stations and supply fuel [to the stations] to generate electricity… the government should not provide the fuel for them [to minimise the cost of the service and fuel] … we do not have 24hrs electricity… this is chaos! These [market and revenue risks] should be managed' (S47, RSG)

Because the MOE is the only supplier in the market, consumers are left without any choice regarding where they get the service from. Indeed, electricity supply shortages cause the duplication of consumers' costs (to pay two bills for alternative electricity provided from the local generators and the MOE). For example, a residential consumer put;

'Let us ask if people pay or not [for electricity]? Now I have, for example, 4 Amperes from the local generators, I paid 40000 ID last month to the local private generator and 40000 ID to the government [the MOE Distribution point] which is 80000 ID in total … I am ready to pay 90000 or even 100000 [ID] if I can get full capacity and 24 hours electricity to use as I want' (RC5.FGB6, GPG)

The involvement of the government and its role in BOO have not gone according to proper project scope descriptions or clear project requirements (how effectively resources should be dedicated to the service provision). For example, from the RSG interviewees, a high representative in one of the branches of the labour union brought this issue into the discussion:

'The expenditure of this [region] is for the private sector. This is a way to misappropriate the public funds and resources. The current crisis [suspension of public budget and low oil price issues] that the government has encountered is a part of the non-existence of plans to support the private sector. The support is not preparedly applied. I can say the private sector is benefited but honestly not the public' (S54, RSG*)*

The electricity demand has grown at more than twice of the rate of the capacity for supply. In developing quality electricity service provision, the BOO activities have not ensured that the public be able to access reliable electricity provision. Even though the capacity of generation has seen expansion, the efforts to meet the objective of 24 hours of reliable electricity supply by the government have not been successful. Most public sector officials interviewed highlighted the BOO impacts upon capacity increase in the electricity generation which seemed difficult to be achieved by the state alone. As a senior manager at the MOE stated:

'*If there were not the private sector, we would never have the electricity capacity that we have now. It was not possible for the government alone to build all these power plants since*

2007 until now. The Regional Government could never own all these stations because it is not capable to establish all these projects' (S16, PSG)

The poor status of the electricity generation capacity resulted from the very limited capacity of state-owned stations. Another senior manager at the MOE commented that

'If we look back at the situation of electricity provision prior to the participation of these private companies, it was really bad. The reliance of the government or the MOE was on the hydropower stations of Darbandikhan and Dukan only…. The government and the people of the Kurdistan region have benefited from establishing these power plants and from better condition [of generation capacity], and better electricity [supply]' (S17, PSG)

As the poor status of generation capacity resulted from the very limited generation capacity of the hydro stations that had never matched the demand incurred by the regional growth of electricity, the impact of BOO is manifest in an increase in supply. The experience of the MOE in the field of electricity generation management entailed unmet electricity demand and frequent service interruptions. According to the data from the Kurdistan Region Dispatch and Control Centre (KRDCC), the output in 2006 of Dukan station was 108 Mw and Darbandixan station was 78 Mw respectively while the demand of the region was 1457 Mw. To compensate for the electricity supply shortage, the KRG relied on imported electricity from Iran and Turkey, although not sufficient to cover demand. The evolution of generation capacity and the rate of demand increase in the KRI are illustrated in the Table 5.6.

Table 5.6 Electricity Demand in the KRI and the Evolution of Generation Capacity

Year	2008	2009	2010	2011	2012	2013	2014	2015
Hydropower Total in Megawatts	63	47	134	84	112	125	92	83
IPPs/ N. Gas Power in Megawatts	122	508	748	1408	1813	2033	2200	2417
HFO* Plants in Megawatts	0	0	0	23	151	181	187	95
Total Imported Power	278	227	166	7	8	57	98	53
Total	463	782	1048	1522	2084	2396	2577	2649
Demand	1889	2082	2294	2776	3297	3868	4525	5353

**HFO - Heavy Fuel Oil*

Source: Data Summary from KRDCC, 2016

Table 5.7 details the generation capacity improvement after the participation of IPPs. In Mid 2008, only the Erbil Gas-fired station, the first IPP in the region, was in operation and supplied 122 Mw to the system. As of 2014, the generation capacity reached 2200 Mw. At

present, the IPPs provide 85% of the generation capacity. With more generation by these IPPs, as the table shows, the imported power in megawatts has also decreased. The capacity of generation has expanded after the contribution of the BOO projects, even though the forecast demand of 6000Mw for 2016 has never been met by a reliable supply.

There are still regular cuts of the electricity service with more acute shortages at seasonal peak demand (certain summer days and winter days). The demand is subjected to fluctuations over the course of the day, for instance, peak demand is mid-day particularly at extremely hot weather conditions in summer and night/early morning hours during extremely cold weather conditions in winter. Consumers tend to rely on electricity for cooling and heating, which leads to surges in demand. To compensate for the shortage of electricity supply from the national grid, most consumers rely on private local generators (with less equivalent capacity units e.g. few amperes for each household), which has caused them inconvenience particularly at seasonal peak loads (there is less capacity for turning on air conditioners).

The impacts of the failure to meet the electricity demand are mostly faced by consumers and businesses. There is also the issue of 'Indirect payment by consumers' (Li et al., 2005a). The public sector, acting on behalf of the public, is required to pay for the PPA for the electricity service provision and for availability payments (because of undersupply of fuel to run the units or/and the inability to transmit the generated electricity) from the public fund. This means that the public pay twice for the service.

5.3.1.3 Quality of Contractual Procurement Process: Degree of Competition, Political Interference, and Opportunism

The issues related to the quality and design of the procurement contracts involve the government's failure to fulfill the potentials of gaining the most opportunities (better operational efficiencies of the private sector) via the BOO contracts. There is an absence of a sufficient market in the electricity generation sector that would have enhanced competition among private companies in the region. The market has taken a monopolistic structure. While very few public sector officials said that the electricity market had opened up to competitive proposals, many interviewees from all stakeholder groups noted that there is an absence of competition and that it is mainly due to political parties interference

and hindering efforts for establishing a competitive tendering process. Only few private companies (IPPs), which received approval by the government, were permitted to dominate the electricity generation market. This can explain why the PPA was priced with no force of competitors, meaning, not allowing competition pressure to decline the cost per unit of electricity on the purchaser, the MOE. As a member of provincial council put:

'Our government is not working on the basis of constitution and plans [the governance of the sector]. It works on the basis of individualism – not an institutionalised government. When a government works on the basis of individuals and politics, the private sector's involvement will affect the public interest… this [the private sector's involvement] should be according to a bidding process that best tenders are chosen based on the best price, but here [in the region] it is not like that...the few companies that participate [in the projects], are friends and relatives [have personal networks with the political parties]. They have agreed on [the projects] to be built by whom, at the highest price, and worst quality early on' (S47, RSG)

The government is not capable of ensuring the healthy practice of procurement contracting. This has significantly impacted the wider objective of the BOO stakeholders' quality procurement process that would eliminate the interference of political actors, corruption and opportunism of the BOO key parties, and the ineffective management of the public fund. The issue of some stakeholders being against the operation of BOO contracts in the public interest is challenged by political intervention. The political interference is also apparent in other activities such as fuel provision to the power stations by the government. The example to this is the involvement of other private companies in fuel provision. It was noted by most of the GPG and RSG interviewees that there is a deliberate suspension of the natural gas transmission network expansion that has led to the consistent need for gasoil to operate the power stations. This delay of the natural gas network expansion is believed to serve the interest of the private companies involved in fuel provision. In a focus group conducted with residents near one of the power plants, a consumer commented:

'The Chamchamal power plant cost is more than the Makhmor plant, what is the reason? There are some things that have been done politically [to serve the interest of companies involved] … for example connecting natural gas pipes to these stations form Kormor fields near Karkuik and Qadir Karam near Karkuik. Natural gas pipes have been connected from

there to Makhmor but until now they have not been able to provide natural gas to Chamchamal station in which natural gas sources are beneath Chamchamal or just a few kilometres away. They were not able to connect pipes. Until now, the fuel is supplied by tankers: we know it costs a lot' (RC2.FGCH5, GPG)

The government has not been able to provide the full capacity of natural gas needed to operate all units. This potentially involves more risks (fuel costs) for the government. For the PCG and PSG interviewees, the issue of fuel undersupply is perceived to be low commitment to the BOO contracts. There is less consistent follow of vision of the electricity sector development. As a senior manager at one of the power plants commented:

'… The fuel supply has been an issue… There are some limitations there as well […] Quantity alright! As new plants are coming on, as like Khormala, it is an additional expansion to Sulaimaniyah [plant]. This has definitely stressed the gas supply. So, not only it is a scenario where further investment may have to be made as well, for so you cannot just grow one sector. You have got power sector distribution and gas [to develop], which all have to be realised with bigger vision' (S15, PCG)

The risks associated with fuel supply, the expansion of natural gas network, and grid expansion are raised because there is no full commitment to the partnership vision of developing the sector. The plan to increase the capacity of generation must be properly implemented together with the commitment to develop the transmission network and the electricity distribution sector. Achieving success requires the conformance of the PPP parties to the purpose of the partnership whenever political and economic challenges occur, as highlighted by Goldstein and Mele (2016).

The BOO contracts have also been depreciated by PPP decision makers negative behaviour and challenge to assert opportunism. Most of the stakeholders interviewed noted that the government's behaviour in these BOO contracts shows no distinction between that of the responsible actor to secure the financial expenditure for the benefit of the public and that of a vehicle to facilitate the intervention of any political party who wants to guide the process for the interest of the private sector. This has significantly threatened public trust and role of the government in the BOO contracts. It can be concluded that the strategic behaviour of the government is shaped by decision makers' opportunism and their efforts

to extend secured investment return to the private companies. As a senior manager at the MOE noted:

'We [public authority] have PPA, this is wrong. What we have done is risk, we did incentivise [investors of the first BOO projects] …. They [the companies] have been given huge incentives just to come to generate electricity. Then the contract has two options [perceptions] one is that [contracts] approved with no knowledge, if you believe in the honesty of our politicians. If you do not [believe this], [the contracts are] approved for the private companies [interest] to seriously get benefit because now no risks are left for them. Everything has been done for them [by the government]. 100% insurance unless something natural happened' (S26, PSG)

A high representative of one of the branches of the Chamber of Commerce and Industry also commented:

'These contracts approved for the electricity [generation] are very wrong. According to the contracts, the companies sell the electricity to the government and the government should provide fuel to them [for the stations]. This is a big cost on the government… the government bears the costs of natural gas and gasoil, therefore the contracts agreed on with the companies are improper and uneven' (S45, RSG)

The public sector initiated the BOO procurement with offering excessive incentives to the IPPs. Many incentives were unnecessarily extended such as government's support for land acquisition, fuel supply, commitment to a PPA that privileges 60-100% availability rate and tax exemptions. These incentives have been associated with higher risks than the rewards to be obtained. All these incentives reflect that special interests have been pursued in PPP implementation i.e. the private companies aimed to secure the benefits in the procurement process. As a residential consumer noted:

'We have all these resources [oil and natural gas resources of the region] the government uses for its own purposes and interests, what [quality of the service] has been secured for the public?' (RC1.FGSL1, GPG)

Furthermore, this necessitates the accountability of the government to enter these agreements. The public sector's pursuit of a transparent process could facilitate disclosing information about the amount of resource committed to these projects. A residential consumer raised this concern:

'This [BOO contracts for electricity provision improvement] depends on how much [the electricity purchased] takes from the public budget and how much has been taken? This is another issue' (RC3.FGCH, GPG)

It was noted that the BOO move has to accompany the establishment of a transparent and institutional reform. The ability of the government to employ effective evaluation criteria and form procurement process mechanisms such as stakeholders' relation management that would ensure sufficient consultation and commitments has not been strengthened. As a member of provincial council noted:

'The government should make efforts and gather consultants to address the advantages and disadvantages [of the private sector involvement], and it could conduct a feasibility study to achieve the public support at the same time. From that point, the collision would not occur to make the public interpret [the private sector involvement] and that the government could not govern [the contracts]. This is one of the things that create political issues' (S49, RSG)

Thus, as a result, public support would have been effective in making BOO projects successful through collaboration with the government to coordinate for effective consumption of electricity. This would have supported reducing the public sector's cost of service provision.

5.3.1.4 Innovation and Utilisation of Technological Advancements

In offering improvements for the efficiency of the sector, there are mixed indications to reflect the impact of BOO projects on the facilitation of innovation in the sector. It was widely recognised by many MOE employees, consumers and RSG interviewees that the BOO projects have not enhanced investment and introduced innovative solutions in the sector for better quality and efficiency of the service provision. It was noted by most of the

MOE interviewees the aim for quick solution to increase electricity generation had not encouraged the use of new technological advancements in the power generation process (e.g. methods for utilisation of renewable resources to generate electricity in the region such as wind or sunlight). The traditional approach of relying on gas-fired turbines, mainly run by gasoil, is considered the least desirable selection type of power plant (incurring high fuel supply cost and negative environmental impact). As a senior manager at the MOE commented:

*'It [innovation advancement] is not to that extent [low]. For example, what are new [machines]? Those [machines] that the companies bring should have higher efficiency. Usually, the progress in the world [in the field] drives machines and equipment that have high efficiency. No, it is not at proper level, the efficiency of the gas turbines is 32%. Lately, they [the public sector] have tried to enforce combined cycle. Those [stations], which are converted to it, ask for higher capacity charges from us [the MOE]. [The government] was supposed to think about those sources of generation with lower costs and higher efficiency… the other side of using gasoil to run gas turbines, technically, lowers the efficiency and [increase] the cost of [fuel]…. The other sources of clean energy are supposed to be exploited such as sunlight, wind, bio-thermal and hydro' (*S18, PSG)

The most notable concern for most of all groups interviewed is the BOO projects have not been accompanied by adoption of innovative solutions that would improve not only process capacity but also bring in appropriate tools that would help improve quality of the service (reliable electricity through improving consumption patterns in order to reduce energy waste by consumers e.g. energy efficient street lighting and the use of eco-friendly construction materials and methods implementation in housing). As a residential consumer in a focus group noted:

'There is high consumption here [in the region] ... because houses and buildings, in this country, are not built in a scientific way [energy saving]. For heating we need loads of energy so do we for cooling. This is very important. A point that should be considered in order to minimise energy use… these [methods for better consumption patterns] for energy use can also bring returns to the government and [help] monitoring in terms of materials that imported. …. This needs collaboration between the government and other sectors' (RC1.FGER2, GPG)

It was perceived the utilisation of innovative solutions in the sector has resulted from the neglect of technical knowledge of the public sector particularly advisors and engineers at the MOE to address the type of the power plants and performance criteria that would have impacted innovation in the sector for better efficiency. As a high representative of one of the branches of Chamber of Commerce and Industry put:

'The issue is the government has no plans and research centres. If we had, they [the government officials] could conduct a search for the latest technology and impose [on the investors] the specifications they require. When [investors] establish [a power plant], to request the equipment [they] would go for companies [suppliers] that cost the least... But the government can impose obligations and conditions [enhancing utilisation of innovation] that would make the investors not only consider earning money and profits' (S45, RSG)

To develop innovative solutions, the involvement of, in particular, the public sector's experts and skilful people in the field should have been considered in BOO projects. This could enable collaboration links to be established with local research centres in universities and consulting companies to scrutinise innovative methods. Collaborative working is a factor that could influence innovation (Leiringer, 2006). As a member of provincial council was further perceived:

'I always say this [innovation] needs the involvement of experts [in the process]. This can be through two ways: building relationships and depending on researchers in the top universities. Those who conducted research in the area should be invited in conferences and also invite others [the public sector employees] to get benefits… this is not only to develop the company [their innovation capabilities] that contracted with the government but also students and other researchers to see what developments have been studied' (S50, RSG)

While most of the participants from the GPG, MOE employees and advisors, and RSG perceived that BOO has not brought about implementation of innovative solutions, the private sector participants possessed different perception. Most of the involved senior managers at the project developer companies recognised a step taken towards learning and the sharing of best practices. A benefit for the local companies and the public sector that

partnership would facilitate is the transfer of the technological knowledge, which is likely to occur via partnership (Li et al., 2005a). This involves the integration of how-know knowledge from international expertise into the local project companies to facilitate innovation. Most of the private sector interviewees concurred the view that the project developers' efforts to cooperate with EPC contractors and assign international experts to the sites have influenced utilisation of technological knowledge and the transfer of best practices to the sector. As a senior manager at one of the project companies commented:

'The reason that I am here is because I have got over 40-year experience [in] building power plants... and many other people [international experts] .... I think you find that if you interview people from the government they have experience here only... I like to put the person has been with MOE for 30 years he has got one year experience 30 times. I have got 40 years of experience working all over the world.... I admit [that in terms of] technical abilities I think you will find that the private companies are doing a better job' (S34, PCG)

A senior manager, with international experience, at one of the power plants further stated:

'We have got quite few talented people and knowledgeable people, in [the] country who, maybe, do lack some the independent power operating philosophies...they leverage some of the western expertise like myself and others to bring in established best practices, industry's best practices, [and] industry's standards best practices, so I think that is the benefit of the region' (S15, PCG)

The PCG interviewees brought up several examples that indicate the investment in new technology and training, which has been considered to enhance operation efficiency of the power plants and maintenance management of the units. The notable technological improvement is conversion of power plants from the simple cycle to combined-cycle plants (installing GE-C7 steam turbines to increase capacity of generation using the same amount of fuel). The private companies through collaboration with international energy-specialised suppliers such as General Electric, Siemens and ENKA have attempted to install technological improvements in turbines and invest in new equipment. Qaiwan Group was the first company in the region to bring a new style of machines to Bazyan Power plant (e.g. they have combustion improvement called Dry Low Max (DML-1 machines) and to invest in a water recycling system for better efficiency of their units and reduction of CO_2

emission. Other companies also invested in Frame 9E GE turbines and equipment such as hydrolysing and detection devices. It was perceived that relations across companies have improved innovation skills and technical capabilities in the plants. As a senior manager at one of the power plants stated:

'…We utilise General Electric [machines], obviously, the original equipment manufacturer. We continuously go to them [GE] for improvements and enhancements to do [in the power plant]. For adjustments…- how we can get more out of what we have - …we go to them and they say well you can add evaporative cooling water injection and [other examples] …The machines become more efficient and [we] upgrade the modifications' (S15, PCG)

Many senior managers at project development companies also agreed that there are some best practices learnt in the BOO contract practice and these have been transferred to the later IPPs such as construction of other facilities by the IPPs and building substations and transmission lines. The transfer of knowledge is needed not only throughout the life cycle of a project but also from one project to another (Carrillo et al., 2006). This could help the government to cope with cost of transmission failure in turn reduce the service provision cost. These improvements in the BOO projects began gradually. At the simple cycle phase of the power plants, the focus was to build the power plants and cover the electricity demand quickly. However, the overarching impact of risks is still the dominant factor along with the neglect of technical knowledge of the public sector and building collaborative relations in impeding innovation, as perceived by most of the PSG and RSG interviewees.

5.3.1.5 Transferred Risk in BOO and Capability of Accepting Risks and Management

There are several risks during the life cycle of BOO projects that require identification and proper allocation between the state and the project company developers. While the key BOO parties have different perceptions of risks and differing capabilities to manage them, the implications of different types of risks for efficiency and quality service delivery are evident. All stakeholder groups were candid about their perceptions of the types of risks in the BOO contracts and the extent the key parties are capable to manage them. They recognised the importance of the proper management of the transferred risks and of assessing their effects for the successful performance of the projects.

Many public officials and private sector participants agreed that risk assignment in the BOO contracts, in particular design, construction, and operational associated risks, has been in favour of the public sector (better management of construction costs and time, material and labour availability, technical capacity and operation issues). Once the BOO contracts approved, all design and construction risks are borne by the project developers. They, through a turnkey contractual agreement, allocated the construction work to an EPC contractor. The EPC contractor has taken the responsibility of delays, design problems, providing materials/machines and resources. It was perceived by interviewees in PCG that in BOO projects this transfer is an advantage. For example, a senior manager at an EPC contractor company commented:

'All [construction phase risks] is managed by one company, which is better, because these topics [risk factors] are related and directly affect the project. Also, to coordinate two different companies or more than two companies the communication is very tough. For that reason, the client always tries to find and select EPC contractors. EPC means all these items [design, construction risks, and commission] belong to one company, which is better for coordination and finding easy and quick solutions' (S7, PCG)

What matters in managing allocated risks for the better performance of operational BOO projects are the management of risk effects that are extended beyond the construction phase. The most frequently mentioned other risks are demand risks, market and revenue risks, political risks, economic risks, imperfect law and less detailed contract terms. These risks emerged over time and not understood earlier on. Table 5.7 summarises the types of current risks allocated in BOO contracts and unassigned potential risks. Each sub risk is highlighted below.

Table 5.7 Allocated Risks Defined in BOO Contracts and the Emergence of other Risks

Risk inclusion	Specified at	Occurred type of Risks	Allocated to
Specified current risks in contracts (obligations)	Construction phase	*Construction Risks* • Delays, design, cost overruns, etc.	Private sector
	Operation phase	*Availability Risk* • Ready generated capacity	Private sector
		Market and Revenue Risks • Fuel supply provision and fluctuation of cost	Public sector
		• Transmission failure	
		Demand Risk • Availability rate payment	Public sector
Coming up potential risks (Experienced over time)	Construction phase	*Construction risks* • Scope of less specified capacity	Private sector
	Operation phase	*Political Risk* • Government Payment Failure	Public sector
		Market and Revenue Risks • Management of fuel provision	Public sector Not allocated
		Legal risk Investment law and Land compensation (farmers requirements)	Not allocated

1- Availability, Demand Risk and Revenue Compensation

When it comes to the operation of the power plants, all IPP developers are devoted to fulfilling the performance standards specified in the BOO contracts such as number of units to be installed, number of megawatts to be generated and available (i.e. availability risk that is allocated to the project developers). There has been a high-realised demand of electricity in the region which has never decreased. However, as agreed, the government was responsible for fuel supply and for the compensation of the project developers' revenue through the take or pay guarantee agreement that obligates the state to absorb the cost or pay for the electricity that could be generated by the IPPs but could not be transmitted by the MOE to the system (all risks of transmission system failure such as load problems were undertaken by the public sector).

Many stakeholder groups including the MOE employees, participants from RSG, and consumers, felt that market and revenue risks on the public sector have not been mitigated effectively. While few public sector official interviewees recognised the effects of accepting such risks, they agreed that understanding the allocated risks of fluctuating electricity supply and accepting demand risks that guarantee favorable revenue for the IPPs has evolved after several other projects were approved. As a senior manager at the MOE noted:

'*At the beginning, we did not have experience. It is more likely if you do not have experience you make mistakes [excessive risks undertaken by the public sector]. When you try to correct them, you gain good experience for the next stage… after the first investment project, we have progressed. We knew legal sides and how to include technical and economic conditions in the tenders… after we revised these contractual obligations, based on the nature of our contract, [the public sector] have created competition. For example, the availability rate with Mass Group Holding is 100% but with Kar is 60%. This means competition is actually created and other conditions that we could not do before are forced in contracts … for example building 400KV substation [by the investor]'* (S19, PSG)

Even though the project developers are penalised if they undersupply electricity (lack of generation without the government fault), residing demand fluctuation and revenue risks with the government remain critical issues in the BOO contracts. Many interviewees from all stakeholder groups agreed that such risks have hugely impacted public expenditures for the electricity provision service (i.e. fuel supply costs and pricing demand risk which were reflected in the public sector's availability payments). As a member of a provincial council commented:

'The problem in the contracts is that if the investor generated or did not generate electricity, the government has to pay for the capacity of the company. This is one of the disadvantages' (S47, RSG)

The GPG interviewees suggested that the increase of availability payments by the government led to the ineffective use of the public funds or to more expenditure at the expense of the public. As a residential consumer in a focus group commented:

'[BOO projects] have affected the Kurdistan region's economic infrastructure because these contracts, whether by mistake or because of the intention of the people contracted with these companies to get benefit, and most of the projects such as Khormala, according to the information I have, even though still has not run in its full capacity, the government has to pay a fixed amount to these companies' (RC4. FGER2, GPG)

Despite a slight change in quantifying availability rate for the later IPPs, many interviewees explained that the availability rate is still in favour of the private sector as (payment of a fixed unitary charge by the government) allows private developers to obtain a certain amount of revenue independently over the life-cycle of the projects. If it is assumed that the local authority purchases at a minimum of 80% of the installed capacities from only two operated IPP projects, the investors gross guaranteed revenue is expected to be over $1b per annum or over $15b for the period of the BOO contracts (AlKhalisi, 2014).

2- Fuel Supply Risks and Increase of Cost

It is a risk that the power stations would not operate at full capacity if fuel were undersupplied by the government. The allocated risks of price fluctuation and the availability of both natural gas and gasoil as a back-up fuel are on the government. Most interviewees the stakeholder groups including the public sector officials perceived that the government is becoming less capable to withstand the effect of such risks. It has resulted in economically unsustainable operation as it makes the government liable for large amounts of payments, mostly for undelivered service caused by the undersupply of fuel. The state should pay the same fixed capacity charge specified at US 3.2 cent per kilowatt/hour to availability payments. Most of the participants agreed that this is the most extreme risk in BOO contracts and one that increases the government's costs. For example, a residential consumer in a focus group commented:

'Since it [the electricity generation service] has been given to the private sector, electricity provision has improved in terms of quantity [Hours]. However, it is not only the private sector that runs the work [electricity generation] …. [The companies] have benefited because the government provides and transports fuel to the power stations…. From this point of view [fuel supply], the government, as Ashty Hawrami [Minster of Natural Resources] said, the government burnt [wasted] the money, meaning the government has not benefited' (RC1. FGCH5, GPG)

Most interviewees agreed that high cost was incurred on the government because of the inability of the public authorities to mitigate the transferred risks properly. This is rooted in the poor examination of potential risks and the efforts to keep the current risks to the minimum through expanding the natural gas transmission network to provide natural gas to the stations. A senior manager from MOE explained:

'The excessive cost on the government is fuel supply…. The generation system followed in this country depends on the use of gasoil of which any country with a good budget cannot stand the expenditure [for fuel supply]. Until now, we've used gasoil as base fuel. [The public sector] uses [supplies] gasoil for generation, this is insane! It is no longer used in the world. We do not have a refinery to provide gasoil for the public and then imagine using gasoil electricity generation in which for each generation unit we need approximately 840,000 litres in 24hrs for each 120 Mw unit and then the number of 120 Mw units we have multiply by 840,000 then work on this base! In fact, these are gas turbines; they have to run by natural gas but you notice the provision and quantity of natural gas is low and insufficient for all the units. It suffices only 10 units and we have 24 units' (S18, PSG)

As the government could not fully cover the costs, less fuel was provided and less electricity generated. An operation manager at one of power station commented on the poor management of fuel supply risks by the government:

'From the beginning of this year till now, we have had two units as standby… [the government] did not ask from us to run… its their obligations to prepare the grid and prepare the fuel that we need to operate these units. I think the government's side needs to put a plan in advance for each project…. the situation now reflects that they didn't move anything, they didn't make any plans to get more than capacity in the grid that they can take care about these megawatts that we will project. Now they need these megawatts but they cannot generate them. It means they do not have any plans' (S13, PCG)

The state is liable to all increase of fuel cost. It appears that large amounts of the total cost of generated capacity is undertaken by the state due to the PPA agreement that does not compensate the local government authorities for paying fuel cost during long-term contractual agreements.

3- Political risks: Payment Failure and Budget Suspension from the Central Government

BOO contracts have not considered unforeseen conditions. Most of the participants from the public sector, private companies and the consumers explained that other potential risks evolved over time. Many noted that political risks causing further economic risks were not understood early on and allocated properly. The failure of the government towards the obligation of service payment because of the current political and financial situation of the region and inability of regular fuel supply provision has had crucial implications on the performance of the projects. Most of the interviewees recognised the unforeseen risks leading to inconsistency of achieving sector development goals, and in particular, unreliable electricity provision. For example, a residential consumer noted the impact of budget reduction (suspension of public budget from the central government) on service provision:

'Budget and revenue had a big role [in improving electricity provision]. While in the last two years [2014 and 2015] the budget has been reduced, electricity provision [in hours supplied] has declined because of the problems of financial and money issues' (RC1. FGER2, GPG)

These risks were not assigned to any of the key parties. Potential political market risks have negatively affected the execution of the most recent projects. At the construction phase of later IPPs, such as Khormala Power plant, the completion has delayed because of the ISIS invasion in 2014, the EPC left the site for security issues. After the Siemens contractor's pulling out of the on-going construction of the power plant, the private sector borne the extra costs of financing, construction and operation.

With such risks confronted, the international aid for the development is still carrying on in the region. The role of the private investment member of the World Bank, the International Finance Corporation (IFC) has been the focus of IPP financing, particularly as a result of the IFC's support for infrastructure development in conflict-affected developing countries. The financial package effort by the IFC has arranged an equity debt for the IPP projects in the region. For example, the Special Purpose Vehicle of Bazyan Power Plant project has approached to IFC for the finance needed for the project. The Coface of France was a

potential lender for the project (Qaiwan Group Stakeholders Engagement Plan, 2015). Considering the Greenfield natural gas-fired power plants, the IFC has also recently secured another loan for the Mass Global Company to add 500 MW to the existing 1000 Sulaimaniyah Power Plant in the region and build a new power plant in another location in Iraq (IFC website, 2016). To reduce other operational risk factors, the key parties have chosen to ease the risks on their own by transferring these risks to the BOO party according to the perceived capacity of that party to manage the emerging risks. The premium government flexibility of the completion of the power plants is considered but it was perceived that the consequences of these risks might lead to certain governmental losses (not running the plant at full capacity and availability payments for undelivered service).

4- Legal Risks: Less Detailed Contract Terms and Imperfect Investment Law

The lack of certain management practices related to enabling coherent synthesised contract clauses has led to the poor identification by the government of some other risks. Participants from the private companies believed that certain project related risks that are aligned in the contracts have not been clearly explained. As a senior manager at one of the power plants stated:

'The terms of contracts are given different interpretations and implications. They are not clear [less coherently detailed]; therefore, [contract terms] create problems. Just for a general example, today one of our turbines stopped. For the period of it being not operational, is it the government to pay for [availability risk]? Or is it us? If it is on the government how will it be calculated [rate]...is it the private sector later to cut their payment or the government has to pay compensation?' (S28, PCG)

Furthermore, BOO contracts were initiated under the investment law of the Kurdistan Regional Government. However, interviewees from the investment board and affected stakeholder interviewees believed that this law is not detailed to the extent that would include terms for compensation and negotiations with affected stakeholders, in particular, with people living near power plants. Even though participants from the public and private sectors perceived that any legal issues have been resolved in a diplomatic manner, the affected stakeholder interviewees had different views. They thought that there is a lack of

supporting plans and legal terms adjustments if any potential legal issue or risks occurred. A mayor of one of the affected areas noted:

'We had a big problem… six transmission towers are supposed to be built on farmers' lands. This raised the concerns of the farmers. It [BOO contracts] did not clarify the amount of budget for compensation [of land values and damage] to make the farmers obey [decisions]. A farmer might ask for ten times of the compensation value [unrealistically because of not fixing compensation] … because this investment has been studied superficially; but things [legal issues] arise in the details [practice]' (S53, RSG)

Although the operation of BOO might not directly face such risks, they might affect the execution of other facilities. The contracts and open rooms for negotiation of better risk allocations are important in order to resolve issues of financial compensation.

5.3.2 Job Opportunities and Local Development

The inclusion of more employment opportunities within the BOO framework was perceived to be essential by most of the affected stakeholders including people nearby power plants, consumers from the general group, mayors, and labour unions. The government through the BOO effort could enhance wider economic development and job growth. The BOO has not had a clear impact on local employment yet. However, it was noted that the project developers employed international staff with good experience in electricity generation and operation of stations. For example, at the construction phase, ENKA, the EPC contractor, which designed and constructed a number of power plants in the region, relied on their international staff. It was perceived by the PCG interviewees that the appointment of the international staff could leverage the transfer of best practices to the sector to improve capabilities in the BOO management and delivery, as further highlighted under the utilisation of technological advancements and innovation theme (see Section 5.4.7). If at the operation phase, the local workforce had been relied on, more talented mangers and engineers with previous experience in the field would have been appointed, mostly from the other parts of Iraq. Even though more opportunities are given to those with specific skills, the reason is the need of training the selected operation staff. As a senior manager at one of the power plants commented:

'*In Kurdistan, there is a limited number of skilled craftsmen. So, they brought in a lot of people from outside during the construction phase…The operational phase again because of the limited number of trained people, we brought in an expatriate staff for the initial start-up for about two years and we are also hiring local engineers out of American universities and other universities from here. They are going to work with our guys like shadows. So, they are working together for a year and a half to two years'* (S1, PCG)

According to the MOE officials and senior managers at the private companies, the BOO projects could offer local employment opportunities through cooperation, in particular, with villagers and residents nearby as potential recruits. This has mainly depended on the availability of suitable candidates in those areas. A senior manager at one of the power plants gave an example of this:

'If we could, we have helped them [the people nearby]. They had one engineer. They asked us to give him a job. We employed him and he has been working with us for a year now' (S28, PCG)

At the same time, however, the affected stakeholders near power plants held different views about employment opportunities offered and benefits for the local area. Their examples indicated that the BOO projects have created low level work opportunities such as the elementary jobs of cleaning and security. It was perceived that this happened because middle managers relied on relatives and informal networks to employ lower level employees such as administrative, security and other services for the stations. It was expected that the BOO projects create more job opportunities, in particular, for the residents near power stations. A resident near one of the stations gave an example by stating:

'Those [managers] there [in the station] who make decisions at the middle management such as senior engineers… those who manage and supervise the works are not from here [the region] … they are from other parts of Iraq, they have impact on the decisions. They have brought those who are administrative from them [close to them]. This is their right but we have more right in this [creating job for the area]. As the consequences, impacts, smokes and other things or side-effects are for us, we should have participated in the

benefits with them [creating local jobs and developments for the area]' (RC2.FGCH5, GPG)

It can generally be acknowledged the change from hydro to thermal generation of electricity (gasoil/natural gas) required experienced technical staff that could barely have been appointed from the public sector and the job market in the region. Because the focus is on employment productivity in the private sector, there is a likelihood of the BOO projects' impact on job growth. One can assume that a higher level of employment from the labour market would occur in the public sector but with less focus on employee productivity if the power plants were built by the public sector. As the example by a senior manager at one of the power plants with previous experience in the public shows:

'*The government always treats [employs] the public better if we compare with the private sector. How is there more [employment]? The public want to have salaries and want jobs; therefore, the government offers more employment. Then, for this organisation with many staff, the production is lowered, effectiveness is lowered, or the management is weak, it would not be a matter for them…. Whether [An employee] in the public sector works [productive] or does not work is the same'* (S23, PCG)

The focus of the private sector is on productivity and on greater production efficiency across the generation sector. As a senior manager with previous experience in the public sector at one of the stations commented:

'The number of staffs we have here [in the power plant] might have been five times higher if the station was owned by the government. Now, here [in the station] – with the staff of operation and maintenance, and the operation staff of the combined-cycle, [the number] has reached 100 [employees] which previously was 50 [before the conversion of the power plant to combined cycle] … if it were the government, many staff would have been employed and most of them would not have had anything to do, as I lived and have been in this situation before. But in the private sector, it is not like this. It is accounted that the work is done by fewer number' (S28, PCG)

Most of the employment issues have related to the efficiency of the private companies. As a result of the efforts of the more recent IPPs to engage with the stakeholders and provide

more training to the local staff employed in the plants, the coordination of the transfer of knowledge from the international staff might be an indication of employment productivity. A notable example in the Bazyan power plant shows that more attention is paid to staff training for managerial practices and operation and maintenance skills through the training provided by the EPC contractor to prepare people for the operation and management of the plant. However, the BOO impact is not clear yet (in terms of reduced employment).

As the employment rate in the region has fallen after the economic and financial crisis that started in 2014, it might be too early to discuss the impact of private sector employment. It was expected that the attractiveness of BOO would accompany the public sectors' efforts to create social support through benefits for the region, especially after the increase of unemployment to 14% from 6.5%, as a result of political insecurity after the ISIS invasion that affected the economy (Rudaw, 2016), and the decline in oil revenue because of the fall in international oil price.

Furthermore, it was recognised that the revision of investment and labour laws promoting the technical and managerial capacity of the workforce through training, as well as tying the local employment objective in contracts are critical. As a town mayor put:

'One of the drawbacks [of the private sector involvement] and also of the investment law, the investors are not enforced to employ locals…. Until now, this [enforce investors to employ locals] has not been done … [local employment rate] has not been specified yet… it was good if something [work for locals] was offered. [Local people] would feel fulfilled… I cannot say that opportunities were not provided, they are provided but not up to our ambition' (S53, PSG)

A high representative at one of the Labour Union branches further stated:

'The government's support to the private sector has not been according to an outlined plan… it benefited the private sector not the general public…. It [the private involvement] was not a strategic plan to include the aims and needs of the public, the government have not had a plan to achieve these aims… excessive support of the private sector has breached the law of employing local people… the government allows the private sector to bring international staff, they [the private sector] have been given power to do that' (S56, RSG)

The investment plan of involving the private companies did not include the development objectives of job security, scholarships and the flexibility of offering placements for training for the affected stakeholders along better electricity provision. Another key concern is that other aims for community development have not been spurred either by the opportunistic behaviour of the government and the project developer. For example, one of the power projects had to accompany the other strategic objective of developing Chamchamal area, which is rich in natural gas resources. The Chamchamal Natural Gas City plan has been significantly jeopardised by the government. As a resident of the town noted:

'If this city had been established many people would have got benefits from it in terms of housing and as I know there was a plan to build 100 small and medium factories…. But this was not achieved. If it had been it would have created many jobs for people here and brought benefits for this area' (RC5.GFCH5, GPG)

The general public group expressed little hope that in the less conducive environment (political intervention in strategic decisions) this project and other local objectives would be fulfilled.

5.3.3 Consideration of Environmental Impact

The decision of choosing locations and adding more power plants was not properly addressed to allow the integration of social responsibilities for the residents of the areas and consumers generally. The consideration of environmental impacts, health and safety issues under partnership projects is considered important for success, given the necessity of including this factor into the evaluation of technical strength for projects (Zhang, 2005). The impact of the increase of electricity generation using fuel is expected to lead to environmental issues. The pollution of CO_2 has doubled in Iraq with 24% contribution from the Kurdistan region (Jassim, Ibraheem, and Jasim, 2016). There is negligence of environmental regulations and restrictions by the projects. A policy framework to protect the environment is required along pursuing the investment and economic activities (KRG and UNDP, SEINA report, 2012). However, the development of BOO projects has not included the obligation of environmental compliance to adhere to the KRG's low of environment protection and prevent pollution. Fortunately, more recent IPPs have

performed better regarding the IFC environmental compliance in terms of emissions (Environmental Impact Assessment are undertaken for the projects) (Qaiwan Group, 2015).

In view of the affected residents and the Environmental Board, the potential impacts of established power plants in the village sites are obvious. However, the impact of the power plants on the environment has been seldom mentioned by the key actors, the PSG and the PCG interviewees. It was noted that this, and that power plants are built on agricultural lands have a negative impact on the production and growth of the agriculture sector. As a resident, who is also a Mukhtar (villagers' representative), in a village near of one of the power plants commented:

'Of course, the project has hazardous consequence on residents' health and regarding the environmental impact it has affected the environment of our area and has created problems [health issues] of us' (S58, RSG)

The other key concern is the reduction in the number of local generators in the residential areas in the cities and villages. There is no expectation to fully minimise the environmental risk as they might remain in use because of less reliable electricity provision from the national grid. As a residential consumer noted:

'The first thing that the government should work on is the removal of local generators. People are not aware of that. All these [emissions] are hazardous and might cause cancer' (RC5.FGER3, GPG)

Another factor among environmental implications is the excessive use of gasoil instead of natural gas in the power plants, which cause more environmental damage in the future. This situation has resulted from ignoring environmental organisations when the BOO scheme was developed. As a high representative from the Environmental Board stated:

'I think the role of environment is ignored in this critical sector… also the Environmental Board was not active [at the time of BOO development]' (S43, PSG)

It was noted that strengthening relations with the Environmental Board could result in setting up meetings to address wider environmental concerns such as the reduction of local generators, the utilisation of natural gas, and lowering emissions by the power plants. All these urgently need to come into full action.

5.3.4 Service Accessibility

The performance of BOO projects to improve accessibility to the service has been influenced by the condition of the transmission network. Many interviewees from all stakeholder groups commented that there is uneven expansion in the transmission sector along the capacity installed by the IPPs. However, the government side has articulated this situation as 'no clear vision' for the development of the sector. The uneven expansion has allowed several risk factors to gradually raise such as of cuts in the electricity provision, high rate of losses and electricity theft. These all make the government prone to high expenditure for the service provision (e.g. availability payments because of transmission network issues). As a senior manager at the MOE commented:

'The network has to be expanded to improve power capacity factors, more stations to be built, and more transmission lines ... in fact you have to put your plans like that. If you do not have plans these problems occur…. the private sector does the job and finishes [the plants] timely but you [the public authorities] are still behind. You [the public authorities] have not reached the level to be able to receive the power generated …. until now the government has not thought of or made a decision. We do not have a clear vision. For example, all the mistakes and gaps existed in the first contracts and we spot them, they should be fixed and changed in the contracts… in the later contracts might be better but still not at a level to reduce risks' (S18, PSG)

To reduce these risks, recent IPPs were requested to assist the MOE with improvement in transmission infrastructure. The later investment has accompanied expanding other facilities such as Khormala power project that included the construction of 400Kv substation which connects the station with a long distance 400kv transmission line network and that Bazyan power project that included building 132kv air insulated switchyard to connect the station to the national grid.

However, with the current transmission expansion shortage the MOE has worked on expanding access to the service. Electricity coverage has seen improvement; 98% of households and businesses are connected to the electricity system of the region (KRG and UNDP Report, 2012). New businesses also expanded along the industries in the areas of manufacturing such as cement and steel factories. The number of electricity consumers and businesses respectively are 1,148,453 consumers and 7,054 consumers making a total of 1,339,718 consumers (Distribution Dept., MOE, 2016). As of 2015, the highest consumption group is household consumption with the residential average loads of 2269 Mw and then the industrial consumption group with average loads of 140 Mw (KRDCC, 2016).

However, with the positive expansion of the service considered by the MOE officials and the private sector companies, the ability to improve service access (the opportunity to have more needed number of available hours of electricity) to target more underserved segments and to lower the cost of electricity for the consumer is less evident. As a senior engineer at the MOE commented:

'Now the electricity should be 24 hours [after more IPPs initiated] but [the MOE] has put a plan for 14 hours service [coverage] from the national grid and the rest to be supplied by local generators, which is cost on the public' (S12, PSG)

This would impact more on the lower income consumers. The price of electricity supplied by the local generators is higher than the electricity price consumed from the national grid. The price of electricity from local generators fluctuates over seasonal times and because of the market fuel price. The price ranges from 4000ID to 10000ID for an ampere. Therefore, this requires more electricity supply from the national grid to the low-income consumer segment.

The electricity loads in hours show that there is not a great difference of electricity service coverage between cities and villages/towns. For example, a weekly average electricity load distributed in Erbil Governorate, in 2017, was 12:46:56 (hours: minutes: seconds) for the city and 12:40:24 for Makhmor, where two power plants are located, showing only a slight difference in availability (Erbil Control Directorate, 2017). However, the concern of service compensation to the affected areas, particularly those near to power plant locations,

is not tied to the BOO project's objectives. It was perceived by the residents of these vulnerable areas that the aim of acquiring more coverage to the electricity service from the national grid or directly through arrangements by the IPPs has not been integrated with BOO efforts. They are the most deprived group that would need to be compensated in terms of more hours of electricity to be supplied, compared to the main cities in the region. As a resident and Mukhtar of the village near one of the power plants commented:

'In your own village and territory, a power plant which is only 500 meters away from us we do not even get benefit from the generated electricity. Electricity just cuts off... They have considered us as a village that is far by 200 kilometres. We have not been beneficiaries' (S58, RSG)

This indicates that BOO opportunities have not been used to drive the demand for electricity at large, particularly for these areas. This concern has not been fully integrated into what the projects should have considered.

5.4 Conclusions

This chapter attempted to answer the first research question of how PPP projects and the electricity sector as a whole have performed in meeting diverse stakeholder objectives and to what extent are outcomes in the public are based on traditional PPP and SCF criteria. The performance evaluation framework, informed by the SCF, for this analysis showed that the BOO projects and electricity as a whole have not performed successfully to achieve wider stakeholders aims and objectives and nor are the outcomes in the public interest.

In investigating the objectives pursued when PPP decisions were made, we find that PPPs have been performed to meet the objectives of key stakeholders of the projects and few development outcomes have been achieved throughout the process. The development of the strategic sector of electricity has not been based on a broader perspective to incorporate the objectives of BOO projects for desirable development outcomes. However, the narrow perspective of BOO key decision makers from the public and private sectors indicates that the sector's development objectives have been designed to only meet some of the efficiency challenges in the sector. The public policy objectives set by the government do not reflect the aims and objectives of the wider stakeholders of BOO projects in the electricity sector.

The primary intention of the KRG was to encourage IPP participation in order to bring about the substantial investment that was required for the expansion of new power plants and improve the generation of electricity in the region. Additional intentions were to provide a quick solution for high demand growth, and a better supply of electricity for the public. Although more power plants have been built and the generation capacity has seen expansion, the consequences of the BOO projects on other efficiency objectives remain serious. The performance of the electricity sector being reformed via BOO implementation in relation to public policy objectives cannot reflect the public interest. The strategic choices in the sector being reformed have been made by a few key BOO actors in the sector and on based on narrow objectives for electricity sector development. The result of this is the state of 'strategic failure' with reference to inclusion of the aims and objectives of the wider public and also leaving various impacts on PPP performance.

The performance evaluation in this study is framed within a broader governance perspective, the SCF, and goes beyond the limitations of the traditional perspective of 'markets' arguments. As a solution to 'strategic failure', based on the SCF, this study suggests embracing a democratic form of governance of the sector being reformed via PPP where an opportunity to incorporate diverse actors and wider stakeholders aims and objectives in the development process can be provided and in turn outcomes in the public interest can be attained.

The performance evaluation of the electricity sector being reformed via PPP can be explained by the theoretical proposition of this study, which is based on a broader governance approach to evaluating PPP performance. The BOO projects and the electricity sector can successfully perform to achieve outcomes in the public interest where strategic choices are based on democratically broad stakeholder objectives. The key decision makers in BOO projects through the inclusion of wider public aims and objectives of desirable operational efficiency indicators (service provision costs, reliable electricity provision, quality of contractual exchange, appropriate risk transfer and management of the potential risks involved, utilisation of technological advancements to encourage innovation in the sector), better service coverage, more job opportunities and fewer environmental impacts, could attain outcomes in the public interest. The performance of PPP projects and the sector, to be assessed in relation to wider public aims and objectives, could be successful in achieving outcomes in the public interest when the democratically chosen objectives of

wider public for an efficient electricity sector are met. However, ignoring the wider public objectives by the BOO key decision makers have created several implications on the efficiency of the electricity sector. The wider stakeholders' inclusion show that these BOO implications can be reduced when the wider objectives are included. These BOO projects are significant for success where the outcomes for various involved parties remain in balance. The implications of BOO performance on operational efficiency can also be explained by the following theoretical proposition the combination of the traditional PPP performance criteria with SCF criteria that are based on wider strategic objectives for the sector's development are of significant relevance to efficiency results in PPPs, they have to be supplemented by the measure of dynamic efficiency, the practice of contracting aspect. The quality contracting issues related to risks, lack of understating and shared commitment to the partnership process allowed opportunistic behaviour by the key partners in BOO projects which have clearly impacted on the efficiency of the sector and created governance challenges in the development process. In certain aspects of the contracting process, the performance of BOO projects has been violated and left diverse impacts on diverse stakeholders. In the analysis of PPP performance success, that would be significant for achieving improved development and efficient outcomes for the sector being reformed, the focus is on democratic governance. After the implementation of PPPs in the sector, an exclusive governance structure has been allowed which is dominated by few key decision makers pursuing their own interests and leaving little opportunity for wider interests to be considered. The interest of the private companies to achieve long-term payment strategy is more secured than the interests of other stakeholders affected by these projects.

The conclusive evidence of the findings in this chapter is that the notion of strategic failure applies to the context of KRI, showing the importance for addressing the governance structures. With the poor performance of BOO projects and the impacts on desirable social outcomes, a democratic governance is needed to incorporate the various interests of stakeholders and to ensure that the outcomes be in the public interest. The next chapter investigates the governance structure that is formed for the BOO projects and identifies the implications and concerns of the evolved or associated governance structure for identifying and making strategic choices have for the public interest and democratic governance.

Chapter Six
The Current Governance Structure of the Electricity Sector and Wider Concerns

6.1 Introduction

In Chapter Five, the performance of Build-Own-Operate (BOO) projects examined, and we highlighted that there are many ignored wider stakeholder objectives, which have not been included when the BOO strategic objectives were made. This issue is related to governance that have significantly affected the performance of BOO projects. Consequently, the Kurdistan Region of Iraq (KRI) government's effort to reform the electricity generation sector has not included the democratically chosen objectives for an efficient electricity sector. This supports the argument in the PPP literature that the governance of PPPs is a matter in serving public interest (e.g. Hodge and Greve, 2007, 2010; Hodge, 2004; Skelcher, 2010). The PPP literature has raised several concerns regarding the implications of PPPs on democratic governance such as accountability and transparency (e.g. Hodge and Greve, 2007), and public participation (e.g. Ng et al., 2010). While considering these key aspects within the governance of PPPs is essential, it is also important to identify the underlying reasons that lead to emerging governance issues.

This chapter addresses the second research question of: How are PPP projects governed and what implications do PPP governance structures have on the public interest? The structure of the market-based governance of the electricity generation sector and the development of the wider electricity sector as a whole is examined by focusing on exploring, in particular, the wider governance issues in that structure and the implications of the BOO decision on public interest. The findings in this chapter are presented in five themes.

While an increasing number of studies identify the importance of accountability arrangements in governance structures of PPPs (e.g. Hodge and Greve, 2007), in this chapter, we argue there are wider concerns than the legitimacy of government actions when identifying wider governance issues. These wider issues are considered as the core concerns of democratic governance which might cause the BOO projects and the development process to not operate in the public interest. By application of the SCF a

broader approach is provided to assessing governance structure and concerns raised in that structure. The findings are organised around the structure of strategic decision-making processes that identified who are at the centre of strategic decision-making power and the implications of this for the public interest, and other traditional dimensions of governance that explored wider issues in the governance structure of BOO projects and the electricity industry as a whole.

A word cloud figure is used to visually represent the content of the analysis, with the words included being extracted from the summary of the final analysis. Since the transcriptions of interviews and focus groups are in different languages (English, Arabic, and Kurdish), constructing a word cloud from these transcripts could not directly contribute to generating an understandable figure representing the frequent words (key issues) found. Alternatively, as the analysis progressed, a list of collated codes in English was made from the analysis process of the interviews and focus groups data. The purpose of this list was to summarise the key wider issues and align their implications as perceived by the participants of this research. Then, the summary could be used for generating a word cloud. To construct the Figure 6.1, two steps were undertaken, as explained in the following.

First, the summary of the analysis was organised into a list, which consisted of the main governance themes (see Figure 6.1), wider issues identified under each and the implications relating to each of these issues on the wider public interest. During the preliminary analysis, several sub-themes (issues) emerged in relation to each main governance theme identified in section 6.2. In better categorising of the sub-themes, this list helped us to organise the key findings. For example, in regards to the structure of the strategic decision-making theme, the sub-themes (issues) coded as exclusion of stakeholders' objectives in the strategic decision-making process, limited competition along with the implications of these issues identified the codes such as ignoring the objectives of stakeholders and improving the BOO contracts, the limited participation of other companies, the pursuit of aims and objective of the private sector, high public budget spending, no competitive price of for the service to be purchased and improper risk allocation were categorised. Second, the complete list of the all themes and findings was converted into a summary and then the text subsequently being copied to one of the online word cloud generators named *wordle*^{TM} to create the word cloud provided in Section 6.2. As Figure 6.1 illustrates, several words were selected by this tool to represent the key findings.

6.2 Governance structure and wider Concerns

This section presents the results from the application of the evaluation framework developed in section 2.4.3 to the analysis of governance structure of BOO projects and the electricity sector of the KRI as a whole. Under each theme, the governance issues and their implications (aligned with the theme) on wider stakeholder interests from the perceptions of the stakeholder groups are presented. The following word cloud, in Figure 6.1, represents the wider issues in the governance of the electricity sector and BOO projects and their implications on the wider public interest.

Figure 6.1 Wider Governance Issues Raised in the BOO Projects and Electricity Sector

The word cloud above illustrates the key words/concepts that arose from the various interviews and focus groups with the four groups of stakeholders: PSG, PCG, RSG, and GPG. The font size of the words indicates the most prominent concepts and also less important words/concepts that arose during these discussions. As discussed in relation to the SCF, there are most prominent words which are stakeholders' participation, access, standing and influence, which are all related to the participation and having 'voice' in the governance structure of the BOO projects as well as the electricity sector as a whole (they are further explored in Chapter Seven). The other essential concepts/terms that were frequently referred to by the majority of interviewees from PSG, PCG, RSG, and GPG in relation to identifying wider governance issues in the governance structure were competition, consultation, trust, and risk allocation, and relationships.

There are other words/concepts that Figure 6.1 highlighted in a smaller font, such as: transparency, monitoring, oversight, secrecy, and competent. These words represent some of the words/concepts that participants from PSG, PCG, RSG and GPG indirectly referred to. These words represent important concepts that were raised frequently by the participants in the discussions. These issues are further discussed under the themes in Subsections 6.2.3 and 6.2.4. The remaining terms in the smallest font size are less important. The word cloud generator broke down the labels that are used for decoding the quotes from the interviews and focus groups. These words are components of the codes that were used for identifying other governance implications raised under the sub-themes. In the following subsections, the main governance issues and their implications are presented.

6.2.1 Centre of power in Strategic Decision-Making Structure

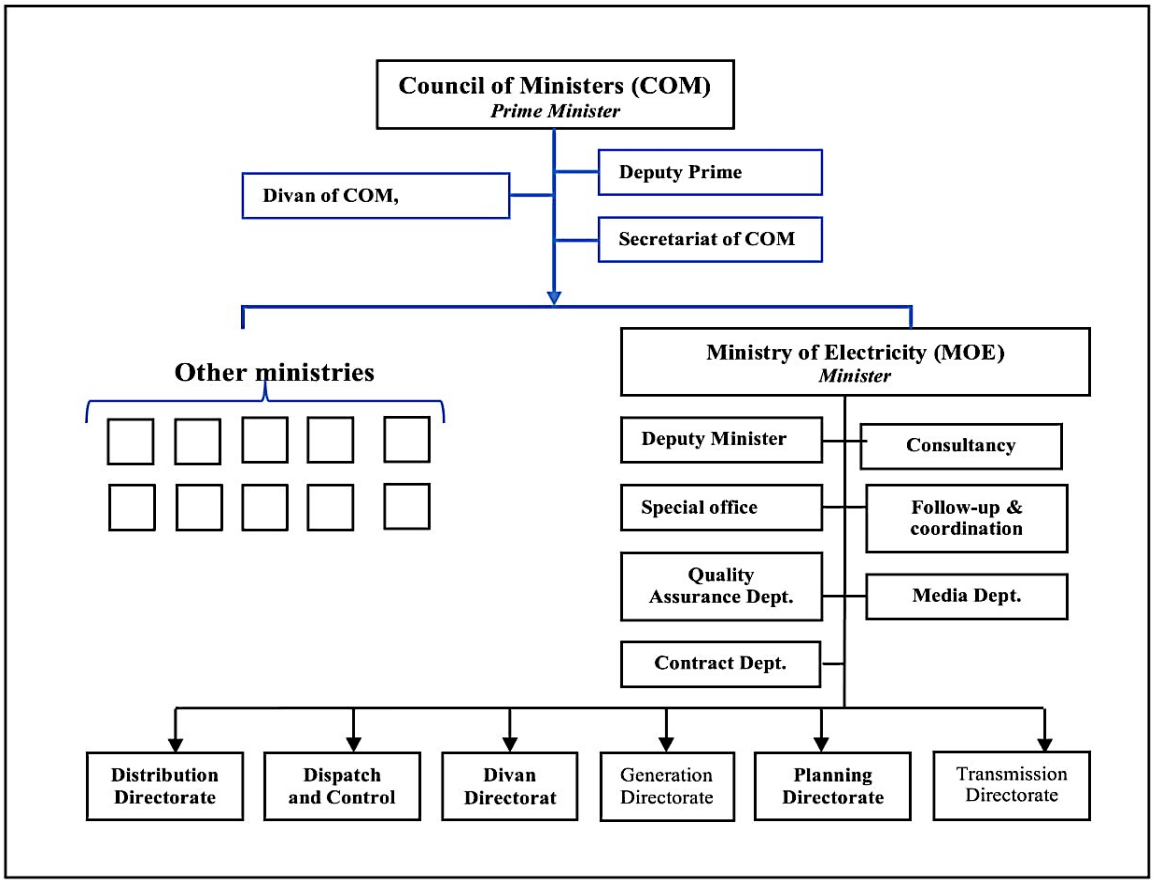
When the PPP policy was introduced for the development of the electricity sector, there was neither an established decision-making structure nor a well-defined PPP policy framework. The highest authority in the region, the Council of Ministers (COM), was the dominant actor that retained control over the strategic objectives of the government and development process. However, the nature of the region's economy and the way it is mobilised can explain the dominance of the COM in carrying out the economic activities (refer to Chapter Four).

Prior to 2003, all economic activities were undertaken in the absence of overall control by the KRI government. Since the region experienced several political conflicts and wars from 1992 to 2003 and the aftermath, the KRI's economy can be defined as a 'war-based economy' in which the production and allocation of resources were to sustain political conflicts and economic strategies of war (Aziz, 2017). The result of this experience was the division of the geographic areas of the region and the empowerment of specific groups (political parties) in the economy. The region had two separate governments which were ruled by different political parties that exerted control and used these territories to market their goods separately (Aziz, 2017). During that period, the electricity sector was governed by several public entities that were responsible for generating, transmitting, and distributing electricity in each territory. The sector was governed by the two separated KRI governments in the absence of regulatory framework and strategic plans. In 2006, these separate governments finally merged during the formation of the fifth cabinet of the KRG.

In that cabinet, the introduction of new policies and projects for the development of the economy was embarked. One of the aims of the KRG was to reconstruct the infrastructure sectors and develop relations with the international organisations to secure funds for the development of social and economic projects (The KRG website, 2018). Accordingly, the process of implementing plans and development projects was undertaken by the KRG in liaison with related ministries and under the direct supervision of the COM.

Although the MOE owns the electricity sector directories and is responsible for operating and regulating the sector, it has not been given the power to fully regulate it, set strategic plans, and develop its policy. The COM is at the top of a hierarchal governance structure of the electricity sector, as illustrated in Figure 6.2 below. When in 2006, the electricity generation sector entitled for the PPP policy implementation, the COM was in the position of making the strategic decisions.

Figure 6.2 Governance Structure of the KRI's Electricity Sector



The selection of PPP contract type (BOO option); the prioritisation of electricity generation projects for the sector; and decisions upon the scope of the projects were all made by the COM. The relevant actor, the MOE, only became involved later in the contract

administration. The interviewees from the MOE departments and other related actors from the state (e.g. related ministries of Industry and Trade, Investment Board), trade unions, labour union, etc. stated in the interviews that they were completely powerless in the strategic decision-making process and in the development plan of the sector through the BOO model. They stated that had no influence on the PPP policy making process (see Chapter seven for more analysis).

At the initiation of the first BOO project, the MOE departments had only been informed by the COM after the approval of the first IPP proposal of the Erbil Gas-fired Combined Cycle. Accordingly, the MOE officials and employees had no option but to put into work the proposed investment strategy and BOO projects for the electricity generation sector (Interview with S38, PSG). A senior manager at the MOE recalled the beginning of the BOO decision:

'At the beginning, the only contracts approved were for the MGH [the first IPPs in the region]. The big [strategic] decisions on contracts and drafting them were made at the highest level [of authority in the government] that is above me. I could not decide on them. The contract drafts were not given to me for a review. I had not been asked to express my approval or give my opinions. NO! It was a special case. The [investor] already set-up the plant but there was not a contract in place!' (S16, PSG)

The MGH, the first IPP, that proposed US$45 million investment (as stated in 2009 annual report by the MOE for the cost of the simple cycle phase) in the Erbil gas-fired power station approached the COM for contract approval and the planning of the project implementation. The strategic decisions of the location of the power plant, the scope of the project, and land acquisition were made through the COM. The COM did not take consultations with the MOE employees regarding these or other aspects of technical specifications and feasibility or of costs and other project estimates (assessments).

The concentration of the decision-making power by the COM has implications over the BOO contracts and the electricity sector development objectives. Most of the interviewees from the PSG, PCG, RSG, and GPG raised the concern about the way the sector is governed and that the dominance of high government officials in making strategic decisions have led to three main governance issues: exclusion of wider stakeholders' objectives in the PPP

procurement policy implementation and making decisions about strategic issues; not creating competition in the electricity generation sector; and the politicisation of the development process. The following provides a detailed description of the consequences of these issues.

At the stage of implementing more BOO projects, it was perceived by most of the MOE interviewees from the PSG that many strategic and technical issues have been agreed upon without considering the concerns or any input from the MOE departments. An advisor at the MOE commented on the exclusion of their objectives in improving the BOO project implementation and the strategic issues of the electricity sector:

'I have been working in the electricity generation sector since 2000 … The decision makers do not listen to you… it is because of the politics of how they think… they do not allow you to participate in decision making … in the electricity field, as you have people with more experience you are supposed to involve them and tell them that we [the government officials] are going to make such contracts and ask [the MOE departments] to scrutinise the contracts, read and identify the benefits… Private company developers do not do interact either. They are businessmen they want to make contracts that serve their own interests… No, we are not even involved in the technical aspects' (S35, PSG)

As a result, there have been concerns about the review of project output specifications, contract obligations and competition, power plant location, and other project technical issues. For example, a senior manager at the MOE stated the importance of considering aspects such as the location of the power plants and project technical appraisal while making strategic decisions in the BOO projects. In the case of MOE departments, they have been facing ongoing electricity network stability problems and uneven electricity generation capacity expansion in the system. Because of the prioritisation of the IPPs interests in terms of the location and capacity of the power plants and the dominance of the COM that has led to excluding the MOE departments in making strategic decisions, these issues have remained unsolved. As a senior manager at the MOE stated:

'We [as the MOE departments] should be suggesting the locations and the capacity [adding more capacity (megawatts) to the network] of the new stations not the investors. For [example], an investor proposed building a 70 Mw plant in Bazyan District in

Sulaimaniyah. I suggested that if the MOE wanted to approve this then it should be built in Qaladze, Garmyan or Soran District because in Bazyan District there are already several plants and the addition of another one will not solve the low voltage issue in the grid. This small amount of generation in my suggested areas has an impact on voltage improvement [stability] in the system not the investment itself for increasing generation. Unfortunately, we have not reached a level where we and not the investors decide' (S24, PSG)

Another critical issue is the absence of competition in the electricity generation market. A senior manager at the MOE perceived the implication of exercising power by a few elites in the government in the evolved structure of BOO decision making on contract competition:

'The process of selecting a contract for approval should at least include several companies. Rather than only giving one company [without competition] full power over the contract [obligations assigned to the government]. These contracts are not chosen competitively .... The reason is the power of these companies' (S12, PSG)

The proposals of other IPPs, who were eager to enter the electricity generation market, had to be accepted by the COM (Interview with S44, PCG). The majority of the interviewees from the PSG perceived that creating competition leads to encouraging more IPPs to enter to the market and that less risky BOO contractual obligations could be accepted by the government (e.g. the major market and fuel supply risks at present are transferred to the government). There is major concern about the high cost paid by the government for the service purchased from the IPPs because of the BOO contract obligations that have been accepted by the government in favour of the private sector. It was perceived that competitive forces in the market can lead to competitive price for the electricity generation service to be purchased from the IPPs. However, not creating competition in the market has led to the government bearing high costs and the use of a huge amount of public budget for providing electricity from the current few IPPs that monopolised the market (see Section 5.4.4.2). A senior manager at the MOE commented on the governing structure of the sector and particularly on not creating competition:

'The other [BOO] projects should have not been approved in the same way as the first project [without any competition]. There should be competition… at the same time, the government should not have accepted all these obligations towards the allocated risks. For example, one of the hardest obligations is fuel supply by the government where there is no monitoring of the effectiveness [of the power plants] beside the obligation that force the government to pay 60-80% of the electricity produced. Even in cases where the government cannot transmit or does not supply the required fuel for the IPP to generate the electricity, the government still has to pay 60% for unproduced electricity. This is unreasonable and there is no justification for this obligation to be included in the contracts. I do not see any reason to push me to approve a contract with these obligations. If I am in charge from the public-sector side I would announce for projects and create competition to accept a competitive price from any company and [with reasonable] obligations' (S11, PSG)

The majority of the interviewees from the PSG also raised the issue of the strategic decision-making process being subject to politicisation. The decision upon the strategic issues such as where to invest and which projects to approve is influenced by the COM officials' power. It was perceived that the current IPPs received support from the officials in power when it came to decisions over strategic issues in BOO contracts. It was perceived by most of the MOE interviewees that the implication of this is on investment strategies and objectives being decided upon for the benefit of the private sector such as decisions on location of the power plants, risk transfer, and fuel arrangements. As a senior manager at the MOE stated:

'*There is an influential factor. The investors in Kurdistan through other mediums that have been created for them [the COM political power] in which the politicians have become powerful. It is their companies [power] that determines where to invest. We [the MOE] subsequently study the project'* (S24, PSG)

The similar politicisation of strategic decision-making process and influence of the COM officials' power was perceived by some of the employees at the private sector. The participation of a few IPPs is seen to be driven by the degree to which these companies have support from the high governmental officials who have power over the BOO strategic decisions. For example, a senior engineer at one of the companies commented:

'The company [IPP] could participate because of the relationship with high officials from the MOE and the government. This has a role [for their approval to enter the market]' (S6, PCG)

The same critical issues raised by the interviewees from the PSG and PCG are also highlighted by the majority of the participants from the RSG and GPG. The majority of participant from the GPG perceived that the way the structure of strategic decision-making of BOO projects is formed has led to neglecting the interests and objectives of the stakeholders in improving the electricity industry and in achieving better project performances. There are concerns regarding the high cost of service provision through the BOO projects to the government, the uneven expansion of the electricity generation sector along the natural gas network which has caused an insufficient fuel supply to run the power plants at full capacity (reduction of fuel supply risks), and the unreliability of electricity supply. The majority of GPG interviewees were clear regarding the impacts that the control over the strategic decisions and the power exerted by the government authority elites (caused by political sensitivity attached to the investment in the region) have on the achievement of aims and interests of the wider public. The residential consumers and locals in the affected areas have concerns about reliable electricity, the effective use of the public budget, and the development of the local areas. None of these have been fully considered in favour of securing private sector interest. The major concern of the GPG relates to minimising the government's costs of the electricity service. The GPG interviewees commented that there is poor effort by the government to expand the natural gas network in terms of minimising the costs. As a residential consumer commented:

'At present, the government claims that the cost [of supply of electricity from the IPPs] is high but it can be reduced. For example, [through] the use of natural gas. The Kurdistan region is very rich in natural gas especially in the area of Chamchamal. The government can provide all the stations with natural gas. However, the government has not done this, why? Because there are private companies involved and contracted with the government to provide fuel for the stations. If the government switch to the use of natural gas, these companies will not be able to sell. These companies are politically powerful and sell fuel to the government at a higher price than the local market price. So why is the government not trying to develop the natural gas fields? It is for the purpose of the private companies

making profits. That is why the government does not want to reduce the cost' (RC3.FGSL1, GPG)

In the case of the residents of affected areas, the location of one of the power plants, the objectives of the locals including creating jobs, providing and developing a gas network to supply gas for the households of the neighbourhood and have a reliable electricity provision, are all ignored. The investment of the IPP in the area determined mainly the objective of expanding the electricity generation capacity for the system. As a residential consumer near one of the power plants in a focus group commented:

'It was supposed that people of this area have a role [in the decisions]. They should not have allowed this plant to be built according to this condition [ignoring their interests], [the public] should have expressed views on how this project supposed to be ...NO, they could not [express their view]' (RC4.FGCH5, GPG)

This condition is related to the exclusion of the people from making strategic decisions to shape the development of these affected areas along the politicisation of the development process. Another participant added to this:

'*The reason for this [exclusion] is that these people [the project developers] are not ordinary people. They are involved in politics and politicians support them'* (RC2.FGCH5, GPG)

The interested groups from the related provisional councils, labour unions, industrial and commercial chambers, investment banks, interested private companies and the public were completely separated from the process. It was perceived that the governance structure that is evolved for the BOO implementation has led to ignoring the role of these institutions to develop different sectors of economy and especially electricity in light of the wider objectives of the stakeholders. The interested groups' concerns involved the implication of exclusive governance structure on the use of the public budget and the development of the private sector.

When more BOO projects were implemented, a narrow network was developed among the public-sector entities such as the MOE, MOTI and Investment Board to supervise and

facilitate the process. This network implemented the key decisions about contract obligations (such as arrangements for land acquisition, payments and fuel supply arrangements for the power plants). These decisions are still made and agreed upon by the COM, and the public entities are required to put them into work with guidance of the investment law no.4 which frame the policy framework during the implementation of BOO projects. With the COM dominating the decision-making process, the related ministry departments perceived that their role is considered to be solely managerial: they only implement decisions (Section 6.4.2 details further analysis). A senior manager at one of the branches of Investment Board commented:

'We [the board] do not have any role [in strategic decision making]. We did not have and do not have… when we give permission for a project, everything comes to us ready [proposals accepted, and projects are decided upon]. The MOE informs us that they have a contract with [the investor] according to the COM decision and says that the project is accepted as an investment project. Then, we work on the project…. we just apply the law [the investment law no. 4]' (S37, PSG)

Consequently, the decision to implement PPPs in the KRI did not move the centre from high governmental officials to more shared and joint strategic decision making with wider stakeholders from both the private and public sectors, as perceived by all participants from all stakeholder groups. Rather, the exclusion of the interested parties, seizing the introduction of competition in the market, and the politicisation of the strategic decision-making process with implications on achieving the wider objectives of stakeholders in the present governance structure are evident.

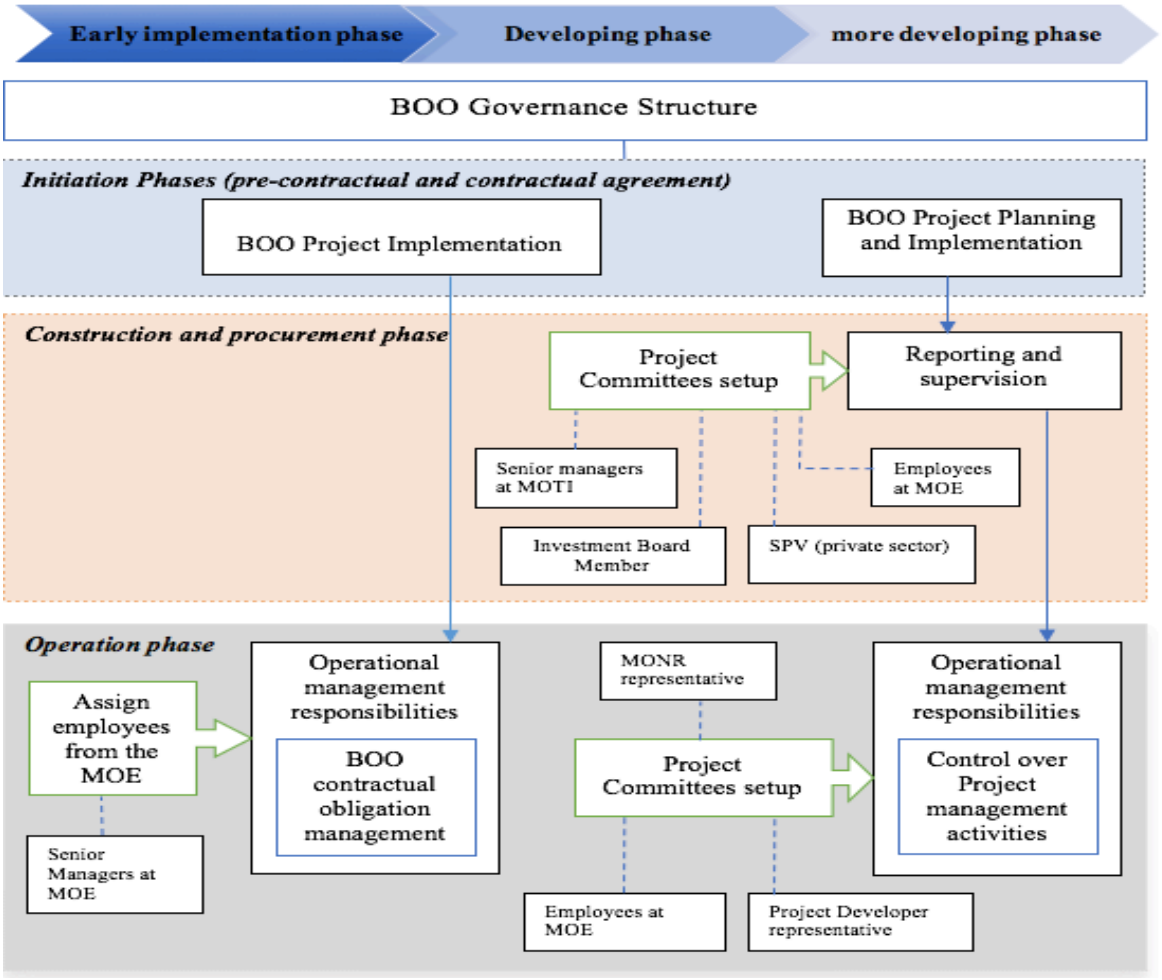
6.2.2 Limited Stakeholder's Relations and Interactions in the BOO Governance Structure

The above theme identified the structure of strategic decision making in the BOO governance structures and the actors with decision-making power. The current theme investigates the structure that is evolved for running the operational BOO projects and its influence on developing relations among the stakeholders and embedding them over the period of the contracts. In particular, the theme identifies the issues raised in that structure, and recognises the implication of this for the relationship of project developers and public

entities with external stakeholders (employees, the general public, trade unions, investment banks, etc.). The analysis is conducted in light of the theme of sufficient interaction and relationship development in the governing structure identified in the analytical framework (refer to Section 2.4.3).

The evolved governance form is contingent on the phases of the BOO life-cycle. As the impression of the majority of the participants from all the stakeholder groups revealed, the governance arrangements that have been applied over the BOO phases have been in response to the requirements of both contractual and operational project management at the project and industry level. Figure 6.3 shows the changes of the structure that has been developed for running the BOO projects and relations operating at it. Figure 6.3 summarises the priority of arrangements in the governance structure according to two evolutionary phases of the BOO implementation, the occurrence of interactions and the development of relationships:

Figure 6.3 The Structure of Governance of Operational BOO Projects and Developed Relations



6.2.2.1 At Early Development Stage: Preparation for BOO Implementation

At this phase, noticeable arrangements for the operational BOO projects, illustrated by Figure 6.3, were focused on procedures for the contract management of the projects at their operational phase. The Erbil power plant and Sulaimaniyah were the early BOO projects that had much emphasis on their management by the governmental authorities. The majority of interviewees from the PSG, including senior managers and employees at the MOE, confirmed that the only effort that had been made by the MOE officials was to place a number of employees (senior managers) at the MOE to manage the operational tasks of transmitting electricity to the system from the IPPs that started producing electricity. As a senior manager at the MOE explained:

'When these contracts (projects)were put into work in 2008, we [the department] were unexpectedly given the operational task of the first unit on 23rd May 2008. It was my duty… however, I was not informed about the details of how this unit worked [specified] and in what contract it was agreed. We took the responsibility of operation: how to manage this power source and how to transmit power from the generation source [the plant] to the network and distribute it to consumers' (S19, PSG)

As Figure 6.3 shows, at the operational phase of the early BOO projects, certain employees at the MOE were selected to manage the governmental responsibilities towards the projects set out in the contractual agreements (managing obligations such as fuel supply and transmitting electricity). This selection was carried out due to the need for a group whose members were chosen according to the managerial positions they had in the sectors of generation, distribution, control and transmission. However, the PSG participants noted that they had limited control over the operational decisions and embedment in the overall governance structure of BOO at the early development phase (pre-contractual including design and planning phases and contractual agreements). At the operational phase of these early projects, COM officials still dominated the decision-making structure.

Issues in the governance structure included fewer interactions and poor relations within the departments at the MOE, between ministries, and with the project developer companies. For example, an advisor at the MOE commented:

'We [the MOE departments] have built relations with the project developers through meetings, except for the first project [there was not any relations]' (S16, PSG)

Consequently, the evolved governance structure for operational BOO projects took a hierarchal form. There was not an established decision-making structure with clear outlines of responsibilities, project management, lines of communication and monitoring sector performance. The consequence of the lack of attention to how interactions should be built among stakeholders is poor in working towards achieving the development goals of the sector. As a senior manager at the MOE added:

'At the phase of the initiation of the BOO implementation, we started from zero. According to the developing phases and involvement of people [the public departments], their tasks

were gradually increased but without planning. The process did not follow concrete plans or international standards. Therefore, there have been some problems. When the government wants to reform the electricity sector, there should be a reform in all the sectors and duties. Also, the rights [of employees at the MOE departments] have to be clear with [identifying] what the tasks are. We do not have any instructions stating that this is the department, and these are the employees' duties in order for me and everyone else to work towards one objective. It is like this!' (S26, PSG)

At this stage, the only embedding in the governance structure was for a few senior employees from the MOE. They were included in the process because the nature of their managerial role brought them together (even though with no support to develop relations with the other stakeholder groups so they could nurture common objectives in the BOO projects).

6.2.2.2 Structure at the Developing Phase: Developing more projects and the procurement process

At the developing phase of the BOO implementation, the governance structure for the BOO projects required the involvement of more departments at the MOE, the Investment Board, and other related ministries (e.g. Directorate of Industrial Project Development at the the Ministry of Industry and Trade (MOIT), the MONR representatives for fuel supply arrangements), and members from the SPV which was setup by the project developer companies for the reporting and supervision aspects of the projects. As illustrated by Figure 6.3, at the construction phase of the projects, committees have been organised for the BOO projects. The notes that were taken during the interviews with the participants from the Directorate of Industrial Project Development at MOIT confirmed that they were required to participate and have representatives in the committees for supervision and reporting required by investment law no. 4. With more BOO contracts approved, the investment law, enacted in 2006, has been relied on and largely applied to guide several operational and management affairs of the later BOO projects in the generation sector.

This law has a role in the formation of the structure of the delivery of BOO projects over their life span, which is in reference to the Article 12 which states that *'the decisions issued by the council on investment projects shall be binding to all the ministries, establishments*

and departments concerned in the region for the purposes of this law' (Investment Law in the Iraqi Kurdistan Region, 2006). The structure has led to identifying and building relationships among several public entities in the public sector. A senior manager at one of the branches of the Investment Board explained the role of the law during the planning and the implementation of new projects in bringing several actors together:

'Every year we ask the MOE to send us their plans…there is a joint committee among the ministries for the projects and proposals that are submitted [by investors]. Since it is an electricity project the opinion of the MOE before any other ministries will be taken on preparation, capacity of generation, and location [land to be permitted]. The MOE is more specialised in these aspects than us…. No project will be executed without the discussion and opinion on the project proposal at the related ministry in the sector. There is also the opinion of other ministries, such as Environmental Board, that will be sought on the project …. All these are according to the investment law… therefore, the approval of all these parties will be requested. If any ministry's advice is to reject any aspect of the project, we will reject it as well' (S41, RSG)

As for facilitating and supervising regional development (investment) projects, only a few governmental entities are involved. The interaction has slightly improved among the related public sector entities involved in implementing the managerial decisions over the construction and operation of the projects. Their interaction in the BOO governance structure, in particular at the construction phase of the later power plants, is reflected in several visits by public entities to power plant sites to write their reports on whether the project company has followed the rules and applied the specifications stated in the investment proposals. Depending on the documents (technical specifications, schedules, etc.), they assess the degree to which the specifications at the construction phase are met, and track the project schedule. As Figure 6.5 shows, the relations are developed based on the committees responsible for running the BOO projects and the purpose of construction risk management.

As the number of projects has increased, the necessity to establish a Special Purpose Vehicle (SPV) by the project developers required interaction among the relevant public-sector entities with the private sector. This relation was described by few interviewees from the PSG as cooperative for better preparation for project execution and operation. The

perceived result was creating support for monitoring the BOO projects. A senior manager at the MOE commented:

'We had supervisory committees… these committees could not amend anything. [The project] was at the execution phase. The company did what had been stated in the proposal submitted to the MOE such as the type of turbine to provide and the method of commissioning. There were not any issues' (S33, PSG)

Another senior manager at the MOE added:

'We have meetings with the private sector on a monthly basis. We, for example, meet with the representative of the MGH to calculate availability payments and discuss things [in terms of payments]' (S25, PSG)

However, the evolved structure has led to the embedment of only few departments at the MOE and they were involved in making few strategic decisions. As a senior manager at the MOE described it, the governance structure only evolved after the phases of the PPP implementation in the sector:

'We have meetings with the companies [project developers] … and even arrange for site visits jointly with the companies. We also visited the fuel fields. We conducted our studies and reported the findings to the MOE, and according to this, the approvals were made for the preparation for operation and setting up the plants in the suggested locations. The location was determined according to this. For example, for some of the units the generated electricity is transmitted through 132KV to the network but now for the later contracts it is made obligatory that the generated electricity be transmitted via 400KV to the network. This [embedment] is not only for our sector but also for other sectors of transmission and substations. They assist us in indicating the nearest lines to the proposed station and the capacity of stations in that area in order to transmit the capacity of the proposed plant. All these sectors have been involved until we have chosen the location' (S16, PSG)

While relation has been built among the project developers and few senior managers from the public sector, participants from the PCG had a different perception. The majority of the interviewees at the PCG have noted the issues of poor relations with wider stakeholders

and the lack of communication and responsiveness of the government. As a senior manager at one of the power plants stated:

'We have daily meetings with our mangers in all departments – our operation and maintenance managers – to discuss issues of our station and then we conduct weekly meetings to discuss wider issues and necessary developments. I receive ideas and then convey them to the upper management through reporting or face-to-face discussions… Let me say something: I have been working with this company in two of the company's stations [owned by the same IPP] since 2006. I have never seen any person responsible in the electricity sector or any other to come over here, apart form on one occasion…. the government side such the mayor of the province should often come over here. We provide electricity to Sulaimaniyah and at present, we have an electricity supply issue, so they should come to visit, become closer, and meet us to discuss the problem. And ask, 'What are your opinions?', 'What to do to make things better and to progress?' I am waiting for them to do [these visits]. Until now I have not seen any mayor… the government is so weak in terms of this; they should be present together with other responsible persons. When a unit is shutdown, they should come and ask about the issues' (S28, PCG)

As the above opinion indicates, the poor relations and responsiveness have not encouraged developing formal cross-sector relations (i.e. relations among all the departments at the MOE and other related ministries and wider stakeholders) to deal with wider economic and environmental issues in the BOO governance.

There are other stakeholders from the PSG that have not been considered. For example, a high representative from the Environment Board stated that the Board of Environment has not been involved in any environmental issues at the initiation and planning phases:

'At the beginning, there was not any consultation to take our opinions… the factors [contributing to this] were a neglect of the role of the Environment Board in this critical sector and the Board's inactivity' (S43, PSG)

The perception held by the majority of the GPG also shows that there are no ties within the governance structure that would encourage cooperativeness with the public and the private sectors. As a resident of the are nearby one of the power plants noted:

'There is no cooperativeness between the government authority, the private sector and the public, only between the government authority and the private companies' (RC5.FGCH5, GPG)

These findings indicate that the structure would strengthen relations within the governance structure of BOO delivery if it allowed the building capacity to create a special department or bring a subset of departments together. It appears that the government relied on a structure based on the use of existing MOE departments and other governmental entities to deliver the projects and assign existing employees. The insights from the interviews with PSG, RSG, GPG and the investment banks indicated that this structure has restricted relations with the wider stakeholders because of less consideration to clarifying responsibilities, responsiveness and the effectiveness of communication.

6.2.3 Lack of Public Trust

Building public trust is an important concern in a democratic governance. In light of the theme of public trust identified in the developed conceptual framework (refer to Section 2.4.3), the present study investigated the extent to which trust has been built in the governance of BOO projects and the electricity sector as a whole. The perceptions of wider stakeholders indicated that building the public trust has been ignored. The way the reform in the electricity sector is conducted and the structure evolved for running the projects can explain how the public trust is affected. The results in Table 6.1 show that there is a difference in the perceptions of the involved stakeholders that developed relationships within the BOO governance and the external stakeholders about building public trust.

Table 6.1 Trust Dimensions Based on Stakeholder Views of Contractual and Non-contractual Relations

Dimensions of Trust	***Nature of the relationship***	
	Contractual Relations Between the public-sector entities and project developers	***Non-contractual Relations*** Between the key actors and the wider stakeholders
Competency	Actors are competent in making decisions	The government is not trusted to make competent decisions
Concern	The welfare of the public is considered	The public interest is not considered by the parties
Integrity	-	The BOO implementation is influenced by the private sector's interest
Openness	-	All relevant information is not fully provided about BOO projects
Reliability	-	The government is inconsistent in actions

In examining the dimension of the public trust in the governance of BOO projects and the sector, findings indicate that the stakeholder group perceived building trust according to the concerns they have in relations to risks and the government or private companies' behavioural responses towards the management of risks associated with the BOO projects. The perception by the wider stakeholders that the government and the private sector have managed the BOO risks differently has raised the issue of the lack of public trust.

Based on different concerns about risks, different dimensions of public trust, presented in Table 6.1, were perceived by stakeholder groups in showing how public trust is affected by the private sector participation. The key directly involved actors from the public and private sectors suggested that the appreciable level of trust is consistently improving due to meeting the requirements of the involved parties in the BOO projects to manage the contractual relationship as a result of which parties have made efforts to manage risks properly. This view was more strongly held by the interviewees from the public sector. As a senior manager at the MOE pointed out:

'Both parties have good knowledge. For example, the private sector tries to collaborate with a good international company to build the turbines according to the specifications required for quick completion and quality. Private companies also make efforts to assign staff [who can fix] technical problems. The MOE side also considers the capability of the companies whether they have the capital required for building the plant, qualified staff and

can generate the required capacity required in ensuring the work with the private sector. Yes, both sides have assessed all these and then reached a decision' (S33, PSG)

This shows, therefore, that for successful projects, there is a need for both parties to ensure support. The senior managers from the PSG and PCG noted that both the public and the private sectors are competent when entering into these projects because they took decisions based on professional skills and knowledge required for the BOO delivery. For example, a senior manager at the private company also commented:

'Certainly, every side has the abilities and skills. For those who work in this area you cannot say they do not have competence' (S22, PCG)

Furthermore, the senior managers at project developer companies held the view that there is an expectation that the public sector care about the welfare of the public. This indicates that the government, when entering into a contractual agreement, would act in the public interest and not allow public concerns to be ignored. For example, a senior manager at one of the power plants added:

'If we do not serve the public that is part of the [work], no point! [that] is what you are for here [serving the public interest]' (S1, PCG)

While senior managers at the PSG and PCG held the view that the contractual relations helped develop trust in the exchanges, the external perceptions of the wider stakeholders have been rather different. The way the BOO projects have been governed led to the diminishing of public trust in the government and the private sector. As shown in Table 6.2, in addition to the dimensions of competency, concern, integrity, openness, and reliability, the wider stakeholders highlighted the issue of the lack of public trust due to the concerns about risks and their poor management. The wider view of the interviewed PSG employees shows that the BOO implementation is influenced by the private sector's interest. The influence by the private sector interest is a dimension of trust which is labelled as integrity (Kasperson et al., 2003 in Christina et al., 2016). As a senior manager at the MOE commented:

'There should be fair contracts in place and not such considerations that the government is in need for the private sector for investment and that [for this reason] everything must be put [in the interest of the investor]' (S17, PSG)

In addition, the participants from the PSG mentioned that the government has not had competency and openness in the BOO projects. A senior manager at the MOE highlighted the unavailability of all relevant information when the BOO projects were launched, and that building public trust was affected. By bringing an example of one of the BOO projects, he stated:

'…We did not have information and the right to follow [up on] things… the location [of the Bazyan power plant] was supposed to be in Kalar but later we realised it is in Bazyan, it was 1000 Mw and now it is 750 Mw. It is not clear…. this is why the companies appear more capable. The government do not have this capability' (S12, PSG)

The private sector's assessment of trust in the government also showed the lack of public trust. Many senior managers at private companies expressed that the poor management of operational and fuel supply risk has contributed to the perception that the decisions to be made by the government are not competent and that there is inconsistency in the government's actions. A senior manager at one of the power plants noted:

'When the MOE agreed upon building a power plant, the core aspect of the work should be considered. The MOE should not undersupply fuel for the power plant and ignore the issue of the switchyard [transmission] as well. One day we shut down the station because they [the MOE] had maintenance or new lines were installed. I do not think there is the knowledge or planning by [the government]' (S23, PCG)

Another senior manager at one of the companies added:

'[The government] trusts us because we invest and try to have available electricity from our units. However, the government had to force us for the necessary expansion from simple cycle to the combined cycle. At the beginning, they should have asked us why we have postponed this expansion and also carried out the investigation of completing the combined cycle. By doing this, fuel consumption by the plant would have been reduced and

cost on the government would have decreased and it would even have been better for the environment. Reaching 1500Mw from 1000 Mw is important, there is a 500 Mw [increase]. Why did they not ask us? Because they do not have a plan' (S28, PCG)

The majority of the interviewees from the RSG share the same view with the other stakeholder groups. The common perception is that because the government seems intent on protecting the interests of the private sector, this has led to more mistrust in the BOO main actors and to the community's fear that actors will be opportunistic. As a mayor of an area near a power plant explained:

'During the last few years, whatever has been done [for the government by the private sector] has led to issues, crises and burdens. This has made the public develop a mistrust. In addition, as we have several dominant political parties in our country who work according to their interests and do not consider the wider interest… this will ruin all the trust we have' (S52, RSG)

A high representative from one of the labour union branches added:

'The government should not excessively support the private sector. Instead, they should have followed the regulations that are in place' (S54, RSG)

The GPG participants share the view that the government is not concerned about the interests of the public when making decisions. A residential consumer in a focus group brought up issue of trust when commenting that

'In this country, we have political parties and not the government. Those people who run the government are political parties or a group of mafias. These mafias have made us consider everything as wrong even if the government does a good job for us. So, this is why whatever has been done for us we see it [as something] wrong' (RC4.FGSL1, GPG)

Overall, this perception of stakeholders indicate that BOO governance has decreased public trust in the government and the way this mistrust was expressed depended on the perception of the government's response towards the BOO risks and the power held by the involved actors in the BOO contracts.

6.2.4 Accountability and Transparency Issues

The study has analysed the accountability and transparency concerns in light of the theoretical framework (refer to Section 2.4.3). The findings indicate that the implementation of the BOO model has undermined the accountability and transparency concerns. The governance structure evolved to operate both BOO and also the industry as a whole has been criticised by stakeholder groups for leading to three critical issues. These issues and their implications are presented below.

6.2.4.1 Policy and Regulatory Framework Challenge

The government officials who developed the BOO model relied on the intensive use of the investment law no. 4 which does not include consideration of any accountability mechanisms during the procurement process and the selection of BOO projects. The law focuses mainly on the environment to be created for encouraging investment in various industries, and the obligations and rights of investors, while not providing any mechanism for public interest. The only consideration of the public interest is found in transferring ownership of lands to investors in investment projects.

Consequently, the allocation of accountability in the evolved governance structure for running the BOO projects is challenged. Most of the PSG interviewees believed that governmental authorities have not exercised accountability to protect the public interest. This issue raised the absence of specific regulations and of a robust PPP procurement policy that would hold the governmental authorities accountable for these regulations and policies. Instead, applying the investment law has created more opportunities for IPP investment in the electricity sector and the unfair selection of projects. Due to the dominance of the COM in strategic decision-making processes and the influence of their political power, the IPPs are selected according to the political interest of the governmental elites in power (see section 6.2.1). As a senior manager at the MOE commented:

'The investor wants to make a profit and so the most profitable method will be chosen… Honestly, I cannot understand this the way that others perceive. If there were regulations similar to those robust regulations existing in the European countries, they would not do that [not operating in public interest]. There is something else as well which is, to what extent is the investor's operating in this way supported by the political parties?... it might

be that these companies are launched with the support of the political parties at the background' (S26, PSG)

Initially, related ministries, including the MOIT and MOE, had limited control because of the non-existing clear procedures and regulations. The issue of limited control was repeated with later BOO projects. Employees at the MOE revealed that governmental authorities, when approving the BOO contracts, tried to conceal information (even technical) about the projects for the purpose of undertaking private negotiations without the MOE employees input and control. For example, for the capacity choice of Bazyan Power Plant (one of the latest BOO projects approved for the capacity of 750 Mw) there was no authority given for the project's output specification. A senior engineer brought this issue into the discussion:

'We heard that this plant will be constructed, and this contract will be approved. However, about the processes of bidding, announcement and the foundation of capacity selection, we did not have information. I did not hear anything and do not know how this capacity was approved. Was it an accident? Did the MOE request this or the investor show such capability? I do not have the information' (S11, PSG)

The operational and managerial problems associated with the impact of the BOO model and the development policy of the electricity sector is the result of the adherence to the investment law and the poor development of procurement regulations. The role of high governmental authority, the COM, and its intention to subject the development objectives of the electricity sector to the investment law in the governance have increased the difficulty to hold the MOE officials accountable. For example, an analyst at the MOE pointed out:

'Strategic decisions are made by the COM. For example, changing the selling tariff. I was involved in a committee to assess the influence of large factories, with which they have lots of technical problems [the high consumption of electricity, for instance]. The government agreed on a tariff, which is 20 ID, lower than the tariff set for the [residential] consumers. We conducted a study on the consumption of electricity by a small factory, which costs 20 Million Dollars annually to the government and the electricity sector. This is a result of the investment law which enacted to encourage investment. Every investor should think about alternative supply of electricity. As the commercial selling tariff is 20 ID per unit of

consumption, no one considers an alternative source …. Nothing is studied rationally and economically' (S26, PSG)

The interviewees from the PSG highlighted the necessity of regulations for BOO implementation. The role of the government in BOO to assure desired outcomes and the proper allocation of risks (See Section 5.4.8 detailing the analysis of perception about allocated risks) is associated with proper regulations that should have been developed to make the practice of accountability possible.

The majority of the PSG interviewees believed that democratic and constitutional problems were related to accountability in the BOO, and interviewees from the GPG and RSG also highlighted similar issues of accountability. Many consumers argued that the absence of rules and regulatory frameworks to structure procedures and prevent the misuse of public resources have made the governance of the sector suffer the lack of accountability practice. As a residential consumer in a focus group commented:

'Many things [development policies] that have been applied in this country have not been amended yet. They need reviewing by introducing regulations and strategic plans for the electricity sector. For example, the minister who has run the sector for four years has had a specific plan. After four years, when another government cabinet will be formed, all plans change, the companies and other things. All these have affected the sector and have caused its deplorable state and it incapability to meet public needs. These all need to be re-arranged for. When these are organised, you can provide electricity to the public and benefit from the budget [appropriately use the budget]' (RC3.FGSL1, GPG)

The perception of other interviewees from the RSG also highlighted the necessity of developing a proper regulatory and legal framework not only for the BOO implementation but also in governing the private sector involvement in all development projects of the economy. As a high representative from one of the branches of the Chamber of Commerce and Industry commented:

'If both sectors [the private and public] want to prosper, regulations and law are necessary. Cooperation is required to achieve good results' (S45, RSG)
A mayor of an affected area added:

'The private sector has [an acquired] power [via the political power of a high governmental official]. The investors who enter the sector of power generation are not ordinary people. It is not easy. If the government does not require them to do anything then laws are necessary to correct that' (S53, RSG)

Considering the importance of PPP in developing the sectors and the absence of regulatory and policy frameworks has made the KRI government seek advice from the World Bank in 2014 (Lipson et al., 2014). For the need to develop a policy and a legal framework for more projects, the Ministry of Planning published Supplemental Procedures for Procurement of Public-Private Partnership under the public procurement regulation in 2016 (Ministry of Planning, 2016). However, the current IPPs were approved prior to publishing these regulations. The current public procurement regulation No. 2 of 2016 states in the Article 2 that the objectives and principles of the public-sector contract regulations should take into consideration that all procedures should be conducted in the manner of equal opportunity, value for money, fitness of procurement for its purpose, transparency, integrity, and fairness in competition, sustainability and accountability. This regulation and the Annex (e) of the Public Procurement Regulation Ref. (2) of 2016 by the Ministry of Planning, considers VFM as a specific mechanism to achieve the transparency and accountability objective during the procurement process. In the article 16 in the Annex (e) of the Public Procurement Regulation Ref. (2) of 2016, it is also stated that during the administration and management of a PPP project implementation, the contracting authority should consider that stakeholder engagement is applied in the monitoring and evaluation of implementation. However, the current BOO projects confronted accountability issues as these concerns have not been considered. These regulations have been promulgated at the later stages of the PPP implementation policy and the effort to regulate the private sector involvement.

6.2.4.2 Lack of Monitoring and Oversight

The analysis conducted in the light of the current theoretical framework (see Section 6.2.1.3) has showed furthermore, that there is another accountability concern raised by the stakeholders, which is about setting out procedures for monitoring the public resources allocated for the BOO projects. In the governance of the projects and the sector as a whole there is no monitoring procedures put in place. The majority of the interviewees from the

stakeholder groups highlighted the need for monitoring and reviewing the contracts for the provision of the protection of public resources. For example, the huge public spending for the supply of electricity from the BOO projects is perceived to be the result of the lack of monitoring at the operational stage. A head of department at the MOE argued that:

'We from the MOE including technicians and engineers believe that a general follow-up and revision should be conducted of the contracts because their cost is no longer appropriate for today's state' (S32, PSG)

Allowing the oversight by stakeholders is also highlighted to be important in considering technical and performance concerns. As a senior manager at the MOE added:

'We are supposed to be informed about monthly data and periodically about the electricity service provision cost, what is the rate of loss? What is the situation? How are we doing? Where are we? And what is our plan for the future? And what should it be? We do not have any information like that but it is supposed to be annually [available]. If we do not have all this information, it is not in the interest of the stakeholder. No, it is not for all. If we take the MOE employees, there are a reasonable number with enough experience who have worked in this area [generation] for several years. The MOE should benefit from them and their ability…. When there are no meetings or seminars at which to talk about these topics, I cannot say it is in the interest of all' (S11, PSG)

Most of the interviewees from the GPG also clearly related the accountability challenge to the unavailability of a monitoring structure in the sector. As a residential consumer commented:

'[In this country] there is no law and regulation [for protecting the public and appreciating their input]. There is no monitoring [of actions] …. We accept the private sector's [involvement] but it should be organised… there should be law [procurement regulations] to regulate it' (RC4.FGSL1, GPG)

Most interviewees from the RSG also raised the importance of monitoring mechanisms in the governance. For example, the role of a special unit in providing accountability for the

sectors of regional economy is critical. A mayor of one of the affected areas also pointed out the importance of transparency and monitoring:

'Transparency is very important as well as a vigilant and reliable institution monitoring and supervising ministries' affairs. For example, the reports and studies of the MNR and MOE and all the ministries that have revenues should be published with the support of the president. This what is very important for this country' (S52, RSG)

The issue of the need for accountability has been the main concern of the MOE employees, RSG and the general public. The main involved parties, public officials and project developers have not understood early the critical responsibility towards accountability concerns and oversight by the stakeholders.

6.2.4.3 Lack of Transparency

Transparency is analysed in light of the framework developed by Greve and Hodge (2011) for analysing transparency in PPPs (refer to Table 2.2 in section 2.4.3.3). The findings highlight that there are several transparency concerns at different phases of the life-cycle of the BOO projects and in the wider electricity sector. The issues are related to the way the BOO projects are governed and the involvement of government authorities in the private deals that have limited public input and understanding. The issues of transparency are presented as follows:

a. Non-Disclosure

The involvement of the private sector and the non-openness of the government authorities to provide information about the private contracts, records, and budget expenditure have made the private sector responsibilities and involvement suspicious to the wider public. The implication of the non-disclosure of costs and revenues in the long-term agreements and secrecy in the private contracts is reflected in the difficulty for the public, the labour union, the provincial councils, the MOE employees and other public-sector entities to know about public expenditure and private sector revenues. The majority of the interviewees from all the stakeholder groups mentioned non-disclosure. The interviewees from the RSG frequently raised the transparency concern and noted the necessity of certain documents,

contracts and reports about the economy in general, to be revealed to the public. As a mayor of one of the areas near the power plants commented:

'There is no transparency. For example, a private company should monthly or every fortnightly publish all [data] about its expenses, revenue and budget. However, sometimes related institutions such as the Ministry of Natural Resources that do publish data about resources and derivatives, do not publish correct data. Transparency is the most important thing' (S53, RSG)

At the project implementation phase, the labour union interviewees perceived that the lack of transparency and the non-disclosure issues have created constraints that hindered conducting their duties of educating workers, arrangement membership in the union, launching syndicates committees to supervise and monitor worker's issues of safety, health insurance and payments. A high representative from one of the labour union branches noted:

'It [transparency] and reporting information are very important for us. Firstly, we need to know the number of workers who work in the plants because we launch syndicate committees [from the members of the gas and oil industry syndicate] based on that. Secondly, we should be informed about the contracts that are made with the workers in order for us to know if they [the private companies] have applied the laws and there is no discrepancy with reference to the laws in use. Thirdly, it is important for us, as the union, to be enabled to pursue our objectives' (S54, RSG)

The non-disclosure of information is also the concern of most consumers and residents near the power plants. They were concerned about the lack of transparency related to the BOO contracts and how revenues are made by the private companies and at whose expenses. Because nothing about the private sector deals is publicly available, there is no sharing of data related to how much is paid for the service purchased from the private sector. The implication of lack of transparency is seen in the effort of the government to benefit the private companies at public expense. A residential consumer raised this issue in a focus group:

'In the energy sector as a whole, from the fields to the media reports there is secrecy. This is generally true for the industry. Non-transparency appears when they would not let anyone access the data [of acquisition] and intervene of the public' (RC2.FGCH5, GPG)

Another residential consumer noted the transparency issue in the contracts:

'The contracting process must be clear and transparent. [The public] should know at what conditions these contracts are agreed and at what price! [Nothing in the public domain is known] ... The problem in this country is that the private sector is established and it is true [that they want] the electricity to be provided 24 hours and make revenues but there should be returns for the government as well' (RC4.FGSL1, GPG)

The internal structure of the governance of the projects has also not allowed for reports and strategic information to be disseminated among the employees in the involved private companies. For example, a senior manager at one of the plants commented:

'*Let us say that to any [piece of] information there are two parts: 50% technical and 50% commercial. If we say technically, we had 50% information of the technical side'* (S13, PCG)

Limited transparency in the governance of the BOO projects and the lack of information sharing regarding the strategic decisions are also the concern of the employees at the project developer companies. A senior engineer at a power plant commented:

'We have a flow [of information] from our plant manager ... if there is something [new] and an information from the back office he will share these with us. That is if there is something about operation management, the simple things. About the main [strategic] decisions we do not know what is going on' (S23, PCG)

Most public-sector employees have raised the same issue. A senior engineer at the MOE noted:

'We have not been given a role in committees and not provided with information to chase the things ...even the location [of the power plant] was in Kalar but later built in Bazyan.

It was written in the proposal that it should be 1000 Mw but it is now 750 Mw. Nothing is clear…. not aware of most of the things. Things happen but we are not aware of them' (S12, PSG)

These issues demand information about the private agreements at the implementation phase of the projects.

b. Public Accessibility to Information at Operational Phase

In light of the analytical framework by Greve and Hodge (2011), this subsection highlights the issue of the lack of transparency at the operational phase of the BOO projects. The governance of BOO projects has raised the related issue of the public access to information and scrutiny. There has been no thought given to the transparency concern at the operational phase of the BOO projects. Most interviewees from all stakeholder groups claim that there is inaccessibility to any information related to the projects and reports. The perception of most of the interviewees from the PSG indicated that if any efforts are made to obtain information there is no accessibility, in particular from the private companies. An analysist at the MOE pointed to the following:

'The private sector is not like in other, developed countries, where everything is shared and confidential. For example, showing the companies' revenue and sharing efficiency [indicators]. No, they [the IPPs in the region] do not disclose anything. If you request disclosure, it is conditional and according to your position… if [the information requested] is related to their investment, they would not give it to you. I requested it many times…. cost about installation and fuel and maintenance for the purpose of cost curve, which is an equation, for example showing input and output and fuel used. But they [the IPP] have never given it to us' (S26, PSG)

The RSG interviewees expressed the same concerns. For example, the labour unions' requests of information related to work contracts and other staff information were not taken into consideration. There is no adherence to the labour laws of the region. The labour unions have not been allowed to gain access and have sessions to check work conditions in the power plants, not the clauses stated in the contracts. The related committees from the labour unions could not follow up the implementation of labour laws and assess the extent

to which suitable work and legal conditions have been adhered to by the private companies. A high representative from of one of the labour union branches brought up this concern in an interview:

'Until now [these companies] have not shared information. This means they are not following the labour laws. If they have 50 workers, they provide work insurance for only 20 workers. They would not let us spread awareness to the workers. The membership with us has several benefits. First, [the worker] becomes a member in our syndicate to help them solve any job-related issues. Second, if a worker got a job, [he/she] should have a work contract [showing what are her/his right]. The workers are not aware and not educated to have a contract. In contracts, all obligations and rights must be clear and all laws must be included. This is why they do not like the worker to affiliate to the syndicates and get identity card' (S56, RSG)

The participants from the GPG also mentioned the issue of hiding information about operational projects cost from the public. For example, a residential consumer commented:

'The contracts should be transparent, and the government should work for the people. If the [electricity] sector would be given to the private sector and the service will cost 20 cents, the government should try to reduce it to 12 cents' (RC1.FGER2, GPG)

Overall, the perception of the stakeholders show that transparency is a factor in helping the public regain confidence in the government and the private sector. As the stakeholders highlighted in the interviews, the increasing requirement of commercial information, contracts and reports make openness necessary both in the BOO governance and in the sector as a whole. The implications of transparency issues are reflected in the price paid to the private sector at the expense of the public, in duties and studies of stakeholders hindered to make the process in public interest, in confidence in the government to protect the interest of all stakeholders. The barriers to disseminating information and allowing public access at the operational phase have made the issues of transparency critical.

6.2.5 Commitment to the BOO Collective Vision

The internal governance of the BOO projects and the electricity sector is analysed in the light of the commitment to the collective vision of the partnership theme identified in the analytical framework (refer to Section 2.4.3.5). The private and public partners in the BOO governance have not fully developed commitment to the partnership approach to developing the electricity sector. The necessity of mutual commitment to make long-term partnerships function in an effective way and to solve all potential issues over time to meet project and sector development objectives has been highlighted by several interviewees from all stakeholder groups. While few employees at the MOE expressed this clearly in the interviews, confronting different types of risks and leaving managerial and financial problems unsolved during the life cycle of BOO projects indicated the lack of commitment to the partnership vision. As a senior engineer at the MOE commented:

'I think all [the parties] are following [a shared strategy] but in practice when you work there are many obstacles that you confront whether technical, managerial or any other issues. These are sometimes out of hands. For example, you want to provide [the service] in a lower cost but there are obstacles imposed [by the higher authority]. An obstacle may be managerial that would make you accept even higher cost while you can do better. However, you cannot get to it' (S11, PSG)

In a situation where the government has encouraged more BOO projects to be developed, there is no coordination to purse the development objectives. The only effort made in the partnership is to focus on the operation of projects and provision of the electricity service, yet there is no clear vision for the projects. A senior manager at one of the power plants stated that the performance of projects (which have declined because of the government's inability to manage allocated risks and service provision costs e.g. an inadequate supply of fuel for stations) is associated with not recognising the partnership projects within a bigger vision in order to contribute to the development objective of the sector. He went on to add that the

'[Increase of the power plants] is definitely stressed the gas supply. So [it is] not only scenario for further investment, this may be made as well so. You can just grow one sector.

You have got power sector distribution and gas, all have to be realised with bigger vision' (S15, PCG)

In addition, since the government side has not worked cooperatively to make the BOO projects successful, the implementation of every project is subject to the perception of 'no clear vision' for developing the sector. In a state of undeveloped clear vision, the focus of the private party is then centred on achieving their own objectives to the detriment of the partnership. For example, a senior manager at one of the power plants claimed that

'*There is no strategy and no plan. Each year, we should know what is the electricity demand? how it was? and how much would it be and needed in the future? We should put plans to reach to this [shared strategy]. But [the government] is running [with no commitment to vision] and we are following the government by slow steps'* (S28, PCG)

Initially, the internal governance of the BOO project required an equal commitment of both public and private actors to bring energy and skills for better outcomes. Most of the interviewees from the stakeholder groups perceived commitment to the partnership purpose as a prerequisite for effective partnership. They highlighted this commitment as a factor for success in the governance of the projects and development of the industry as a whole. However, the basis for this depends on collaborative working that is in turn based on a realisation of common interests. As a high representative from one of the branches of Chamber of Commerce and Industry pointed out,

'There should be common interests' (S45, RSG)

To better develop a coordinated vision, it was perceived that efforts should be made to reduce the political intervention and inter-parties' involvement in the partnership activities (such as fuel supply plans), which hindered the common working practices and allowed more private interests to be safeguarded. In an interview with a member of the provincial council, political intervention was further argued to weaken commitment to the vision at the industry level. Therefore, the government is required to be transparent, and feeling of affiliation should be revived to realise the wider vision of all. As stated by the interviewee:

'The government should be transparent and not working for the private interests but for the wider public interest…. in the past people were more affiliated to the country by the force of the Baath government. There was affiliation. But now we have our own country and our freedom we should be affiliated and share the common interests to protect the public resources. This is to create a community that the benefit for all and our generation is protected at' (S51, RSG).

The participants from the GPG believed that cooperativeness and collaboration among stakeholders, encourage commitment to the development process and responsiveness on the part of the government. For example, a resident in a focus group conducted in one of the affected areas where a power plant was located highlighted that the development process will require considering coordination in order to set objectives within a bigger vision. As he put:

'There is no collaboration. If it was, when the government establishes a project here, at first, they come and ask the people of the area and explain that there is a project would be built. [The government] can ask the people by asking: do you have people [to work] for this project? We will not ask for [high management] employment such as managers…. Every employment is according to qualifications… there is no collaboration' (RC3.FGSH5, GPG)

The majority of stakeholders perceived that this poor commitment to the vision of partnership has stymied common interests and achieving wider development goals of the electricity sector.

6.3 Conclusions

This chapter attempted to answer the second research question regarding how PPP projects are governed and what implications do PPP governance structures have on the public interest. In the analysis of the governance structures of the BOO projects in the electricity generation sector and the development of the wider electricity sector as a whole, informed by the SCF, five main themes found that they reflect the core concerns of democratic governance. As the SCF focus is on democratic governance, the study investigated the structure of strategic decision making and identified who are the parties at power. The

findings indicate that the strategic decision-making power is concentrated in the hands of few actors. The dominance of the COM and a number of IPPs in the electricity generation sector have led to several critical governance issues. The political power of the COM and their political intervention in the implementation and development policies enhanced the dominance of a few high governmental officials and IPPs from the private sector. Therefore, the governance structures of the electricity sector and the BOO projects took an exclusive governance form which has led to 'strategic failure' and excluding the various interests of stakeholders in the governance and development processes.

Whereas the SCF focus on the centre of the strategic decision-making power in the governance structure that would allow for ignoring aims and objectives of the people affected by strategic decisions and impact on desirable social outcomes, the study also tried to identify the other wider concerns that the evolved or associated governance structure for identifying and making strategic choices have for the public interest and democratic governance. The concentration of decision-making power, based on the SCF concern, with the other governance concerns of transparency and accountability, stakeholders' relationship development, building public trust, and commitment to partnership vision showed the wider issues that are considered to be the core concerns of democratic governance. These concerns caused the BOO projects and development processes to fail to operate in the public interest (refer to Figure 2.2).

The study suggests that the analysis based on the SCF and traditional governance dimensions can assert that the governance structure followed has caused different impacts on the wider public interest. These issues emerged because of the contribution of exclusive strategic decision-making structure of BOO projects and the electricity sector as a whole. The influence of power and the authorisation of the use of public resources for private interest by a few actors is evident, and it introduced challenges to governance. The findings show that the strategic decisions made by a few elites had several implications for the creation of competition in the industry, the politicisation of the development process and the exclusion of wider stakeholders and their objectives.

The study's theoretical proposition can explain that the PPPs can be in the public interest when the governance of strategic decision making is inclusive and considers wider governance concerns. The attempt to examine the experience of the KRI electricity sector

with BOO model and the private sector involvement provides useful insights into the effective structure for the governance of partnerships. This specific context can confirm the noteworthy concerns surrounding PPPs governance issues. The findings in this chapter sought to supply causal explanation to the notion of 'strategic failure' caused by exclusive governance structure and is present in the context of the electricity sector of KRI. The SCF suggestions to negate this failure is through widening participation and the inclusion of stakeholders in strategic decisions. This is believed to benefit the BOO governance and facilitate the achievement of better outcomes in the public interest. Accordingly, the democratisation of the governance process requires more effort to widen participation and provide mechanisms for the meaningful engagement of diverse stakeholders (Branston et al., 2006b). However, the proper mechanism of involvement and effective principles of stakeholders' participation in the BOO governance must be explored. As such exclusive governance structures exist, the next chapter presents the analysis of the degree of involvement of interested actors and their participation in strategic decision-making based on the SCF and the concept of TOV in order to find out how effective the engagement of stakeholders to have 'voice' in the process could be and how influential their voice might be.

Chapter Seven
Widening Participation in Governance

7.1 Introduction

In Chapter Six, the findings showed the implications of the BOO governance structure on the key concerns of democratic governance. As such, the strategic failure is also present in the electricity sector of the KRI. To negate strategic failure and an exclusive governance structure, the SCF suggests widening participation in the governance process to allow wider stakeholders who are affected by strategic decisions to participate in the governance process (Branston et al., 2006b). This chapter therefore, addresses the third research question of: To what extent does the governance of PPPs allow for inclusive participation in the strategic decision-making process? How can this participation be influential?

The findings presented in this chapter are grouped into two main themes that examined the degree of involvement of interested actors and their participation in the strategic decision-making and development process, and how the inclusion of stakeholder in the governance and development process could be achieved. Accordingly, the aim of the analysis was twofold. Firstly, it tried to define the extent to which stakeholders are/were able to participate (the level of participation offered) to answer the first part of the research question above. Secondly, it provided insights into how a meaningful involvement of stakeholders can be achieved in the governance process to answer the second part of third research question. The study argues that the challenge regarding stakeholders' ability to effectively have 'voice' in the process of making strategic choices can be overcome. When stakeholders are provided with the 'Trinity of Voice' elements of access, standing, and influence (Senecah, 2004), their participation in governance can be granted.

The structure of this chapter is as follows. Section 7.2 presents the findings that addresses the first part of the research question by focusing on examining stakeholder groups' views of the level of participation in strategic decision-making process that is provided to them. In Section 7.3, the theme of participation in governance with the three sub-themes of access, standing, and influence presents the key findings of the investigation of the

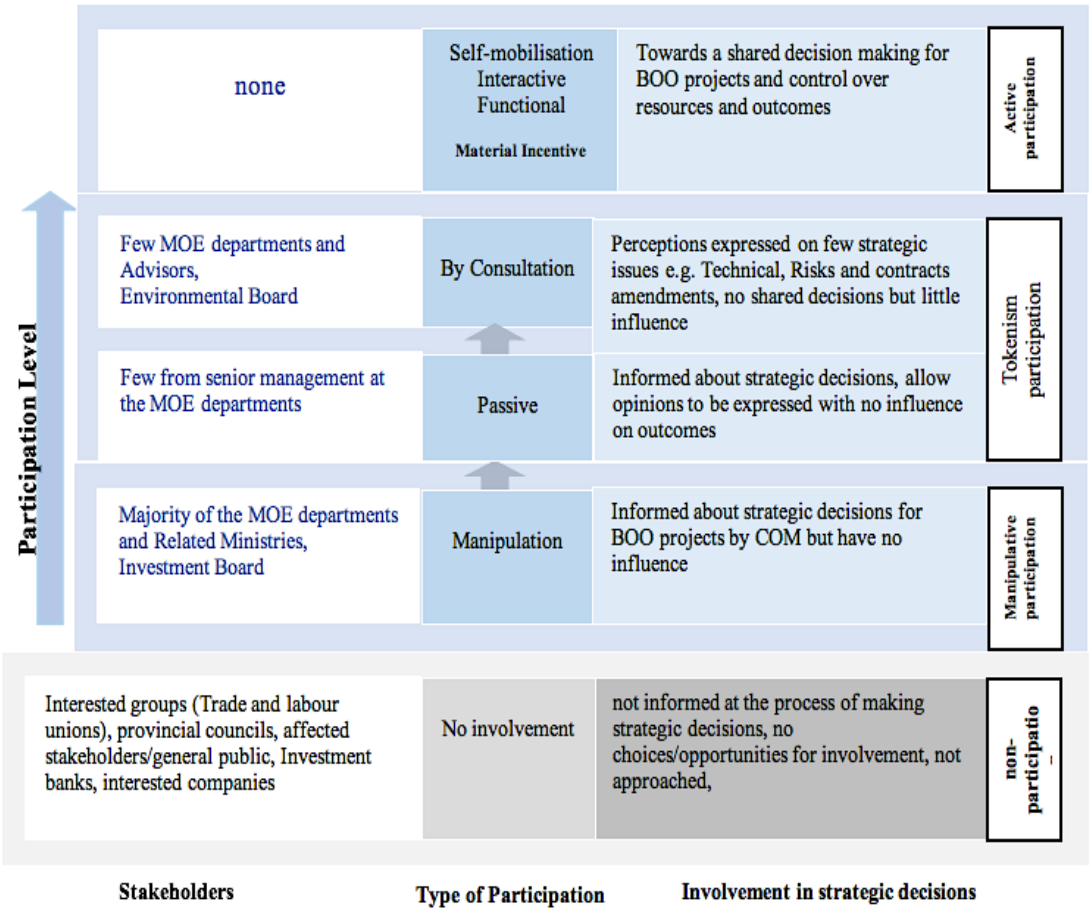
potential ways of being involved in the governance process and for the 'voice' to be influential. In section 7.4 the conclusion of the chapter is drawn.

7.2 Participation Level in PPPs

As section 6.2.1 demonstrated, the structure of decision making related to the PPP policy development and implementation has not moved the decision-making power from a few governmental authority elites to the wider public via partnership initiatives. Subsequently, in the formation of a governance structure to deliver the BOO projects (refer to Section 6.2.2) there is insufficient interaction of wider stakeholders in the process. The analysis in this section examines the extent to which interested actors have been able to participate. The participation level of various stakeholders in the strategic decision making is analysed according to the participation typology developed by Pretty (1995) (see Section 2.4.4.1). The analysis further categorises the type of participation that is offered for each stakeholder group along with the level of participation.

Figure 7.1 represents the findings and illustrates the level and type of participation that are allowed by the key decision makers during the development phases of BOO implementation. At the bottom of the figure, there is a 'no involvement' category which the majority of stakeholders from the RSG, GPG, investment banks and companies are positioned at. This category is labelled under non-participation level. The other two categories above the 'non-participation' category represent the participation level and the type of participation of other stakeholder groups from the public sector. These participation categories are labelled as 'manipulative' and 'tokenism'. The change in the participation level over the progress in the governance process is also illustrated.

Figure 7.1 Level of participation



The various stakeholders from the RSG and GPG had no influence on strategic issues related to the BOO projects (including projects to be PPP, type of the contract, land acquisition/location, risk identification, project related efficiency, environmental and social impacts). They have interest to participate but non-participation level both at the early phase and the more developed phase of PPP policy implementation has been offered to them. When the strategic decisions associated with BOO implementation were made, these stakeholders were left uninformed. The majority of the RSG interviewees expressed that there was 'no involvement' in any strategic issues made in the electricity sector. They could not influence decisions made by high governmental elites and therefore could not contribute to better project outcomes. As a high representative from one of the branches of Chamber of Commerce and Industry commented:

'In making strategic decisions the opinion of the Chamber of Commerce and Industry was not taken [at the beginning] (S45, RSG)

The perception of members of the provincial councils, labour unions and mayors of the affected areas also show that there are several reasons resulting in exclusion from strategic decision making. As representatives of the public, the RSG interviewees perceived political/economic factors (formation of the governance structure of the sector) and the lack of institutional development action as impediments to the recognition of stakeholder participation by the decision makers in the development process. As a member of provincial council commented:

'It has not been done [involvement in strategic decisions] because of the several reasons for the political and economic crises that have occurred in the region. You can see all the institutions have become inactive [since 2014]. Our council has also been established recently and it is not obliged [for the decision makers] to have relationships with us. There are many [governmental organisations] that do not even know us. However, we have made efforts to follow-up things but as I said they have not initiated anything' (S50, RSG)

The labour unions specifically associated their exclusion from strategic decision making with the lack of the sector's and the whole economy's institutionalisation. As a high representative of one of the branches of labour unions pointed out:

'When we say that the government's departments and organisations must be taken forward and institutionalised, this must cover all parties. Unfortunately, in terms of the [involvement of] private companies in the electricity sector we were not involved nor informed about the details of hiring workers and their employment. If something [labour syndicate issues] was occasionally sent to us, it was not fundamental [not a strategic issue]' (S56, RSG)

In addition, according to the perception of the affected stakeholders such as the mayors of the affected areas, there has been a negligence of current institutional law in the region. As a result, participation generally is undermined in all economic activities and not only in the governance of BOO projects. For example, a mayor of one of the affected areas with a power plant brought this into the discussion by commenting:

'Contracts that are agreed with companies are all outside the legislative framework. How is it like that? In my area [of governing] I depend on the administrative law which I work

with. For example, I am the administrative governor and it is supposed that I represent the Ministry of Natural Resources for my area, but I am not in reality. I am not informed about any contracts. It is just my effort that I collect data on the impacts [of projects] on my area, people, and the government' (S53, RSG)

The 'non-participation' category also comprises the investment banks in the region. They are also excluded from the development of the PPP policy and the strategic decision making in the sector. There are two reasons for the exclusion, which are the recent development of the banking sector (private banks) in the region and the restrictions by the Central Bank of Iraq which impose certain regulations on banking activities. It appears that the current banking regulatory framework has put restrictions on the broad involvement of the private sector and on introducing the participation of the private banks. An investment manager at one of the private investment banks in the region summarised the reasons:

'The first thing is the regulation by the Central Bank of Iraq. I think it is article 28 which is for prohibited activities. The second point is that the state monopolised these sectors [infrastructure sectors in Iraq] but in Kurdistan it began [the involvement of the private sector] in 2007' (S59, PCG)

The general public are also excluded and are, therefore, located in the 'non-participation' category. The reason for excluding the general public during the strategic decision-making process was referred by the GPG interviewees to the lack of government authority guidelines and obligation by law to include the public. In developed economies, during PPP implementation, local authorities might engage stakeholders in their response to policy guidelines that require them to do so (Foo et al., 2011)[10]. However, in the absence of any policy guidelines, it was perceived by the majority of the GPG participants the governmental authorities would not be obliged to provide opportunities for the public to participate in the strategic decisions and the governance process. As a residential consumer in a focus group commented:

[10] PPPs are seen as key instruments for democratic governance in most developed countries. As such, policy framework is well-established, and governments develop guidelines for engagement of stakeholders. However, the issue raised by the some of the PPP scholars is that public participation must be designed in and not assumed in partnerships (See for example Lowndes and Sullivan, 2004). The participants in this study agreed on creating law for designing an effective public engagement.

'People want to [participate] but there is no law. The error lies in not having a law. In our country, there is no law being enacted to coordinate this' (RC2.FGB6, GPG)

Even in the early phase of the BOO implementation, there were no negotiations/consultations conducted with the relevant stakeholders in the public sector such as the MOE officials or other related ministries of MOIT. For example, the majority of the MOE departments had no influence on the process. A senior manager at the MOE commented in an interview:

'Because of the nature of the agreements, I can say that not only me but also others [senior managers] at the MOE had not been consulted or participated. [These BOO projects] were initiated at the time when there were urgencies and disaster to provide electricity to people. It was such [a situation] that whatever you have, put it into work and patch [the inefficiency in capabilities] in order for the people to have electricity' (S19, PSG)

The MOE departments were informed by the COM after the strategic decisions had been made about the BOO projects for the electricity generation sector. This type of participation captures the 'manipulation' type of participation, locating this level in the 'manipulative' category in the participation typology in Figure 6.4. Following the increasing attention by the MOE on the development of the electricity generation sector and the effective use of the BOO, there has been growing interest by the MOE senior managers to commit to the development process and raise development and governance issues in any sessions or events arranged by the MOE and other ministries. While these events were not specifically aimed to capture all related issues regarding the BOO governance, some of the senior managers at the MOE exploited them as an opportunity to raise their concerns. Few senior managers have used other means that enabled them to express their opinions on the drawbacks in the BOO contracts and other operational issues. For example, a senior manager at one of the departments at the MOE commented:

'I have interest in [industrial] studies [conducted in the electricity sector projects]. Sometimes I engage in things that are not required by the job. However, I feel it is my duty and responsibility to do so as I think there are shortages in some respects. Right now, I have prepared a proposal which is not mandatory from my job, and I will submit it to one of the advisors. It is on the issue of fuel quantity. There is a draft ready on fuel consumed

in 2014. Fuel consumption must be according to the standards but there is a difference. I have investigated this' (S24, PSG)

It was argued by the senior managers interviewed from the PSG that the extent of influence on the BOO outcomes was very limited. Since the information is shared and there were opinions expressed, the participation level is moved to the 'passive' participation type. This level is located above the 'manipulative' participation level (it includes only few members of the senior management at the MOE) in Figure 7.1.

Although policy implementation/development has progressed, the participation level in strategic decisions and development processes still has not significantly changed. The tendency of the decision makers for the provision of participation level from low tokenism degree for the majority of the MOE departments and other related governmental entities in the public sector has moved slightly to the 'consultation' type of participation. Specifically, consultation was conducted with only a few of the MOE employees and senior level, and it included technical feasibility and the amendment of the contracts (e.g. risk allocation). The BOO implementation experience has raised the need to review the procurement strategy and design. Thus, there was little effort to include the senior level (advisors and directors) in strategic decisions from the MOE. The effort was made because law no. 5 of the MOE which was enacted in 2006 requires the establishment of a board to put policies into work. When the MOE departments were consulted by the minster, the involvement took the form of consultation. Another factor contributing to this involvement was opportunities offered for these senior managers to some events such as conferences and courses held by the Ministry of Planning and international organisations such as World Bank which provided loans for development projects in the region. These have created opportunity for the involvement of the MOE senior manages in the development process. As an advisor at the MOE in an interview mentioned:

'For the latest contracts, a big team from the MOE including the consultants of all the various sectors participated in the revision of the contracts in order to adjust them to the international form' (S20, PSG)

Few departments from the MOE also have been consulted. For example, at the initiating of one of the latest power plants, there were consultations about the scope and preliminary

project appraisal. Some of the departments have been consulted. A senior manager at a MOE department gave an example of this consultation by stating:

'I think I am the only person who was informed of the project. The Governorate sent to us the proposal of [a] company to build a combined-cycle plant. There were three locations: Kalar, Zakho and Qaladze. It was supposed to be in one of the locations and they attached the technical presentation…. at that time, [the director] transferred it to us [the department]. We studied the project and found it very important as the efficiency was not less than 54%, combined-cycle, and the environmental impacts were also considered. As we have electricity supply shortage we supported the proposal and suggested Kalar as the best location. Because the proposal mentioned efficiency, we thought the area will increase the efficiency of the system. Kalar is the end point of the network and at that area we have problems of low voltage in the system. So, we believed it is necessary to build the plant there to balance the system… We replied in a letter and the letter was sent back to the Governorate' (S11, PSG)

The consultation was conducted with only a few members of the MOE departments. The MOE law (5) of 2006 requires the inclusion of the Environmental Board in the decisions for the electricity sector development but, this has only been paid attention to recently and the influence of the Board on strategic decisions has not been clear yet. As a high representative from the Environmental Board commented:

'It is important for us to be involved in the electricity [sector development] and be informed about all details of the process. For this purpose, at the 20th of this month [September 2016] I, as a representative of the Environmental Protection and Improvement Board, participated in the Consultation Board at the MOE. The Board has monthly meetings and it was my first time to participate in this meeting. According to the law, the Board should have a member from the Environmental Board and its purpose is to set the plans and programmes of the ministry and later the Board itself monitor plans and their execution. From now on we will participate in the decision making to voice our opinions and suggestions' (S43, RSG)

These findings show that consultation with few MOE departments to take part in strategic decision-making is being considered. However, wider stakeholders are not able to

participate in strategic decision making; they are not consulted nor offered a participation level that is beyond the 'non-participation' or 'manipulation' type (only informed after the decisions). The narrow focus on participation by consultation offered for only few departments at the MOE in policy development and implementation has not resulted in shared decision making. The experience shows that there is a lack of response even regarding the engagement of the wider pubic in solving problems raised at the implementation process.

7.3 Engagement of Stakeholders in Governance Process to have 'voice'

As demonstrated in the section above, only few senior managers and departments at the MOE were consulted about the strategic issues. This section highlights the perceptions of stakeholders regarding the design of an effective and functional stakeholder involvement process through which they could have a 'voice' in the BOO governance and development decisions in the electricity sector of KRI. To find out whether stakeholders' participation will be influential, the analysis relied on the concept of TOV that is integrated into the SCF approach (refer to Section 2.4.4.2). This concept suggests the elements of access, standing and influence that must be provided along the involvement of stakeholders in the process. The findings are presented according to these elements.

7.3.1 Access: Opportunity to Express Concerns/Views

One of the themes that emerged from the data is 'access'. With an interest to engage in the governance and development process, the majority of the interviewees perceived that they were not given opportunities to access and express their views and opinions of the impacts of BOO projects. Several interviewees from the PSG believed that to be actively engaged in the process, it is crucial to be involved in industry and project related meetings or events. By offering this to them, they perceived that their significant concerns about the potential improvements in the performance of the projects can be discussed. For example, a senior manager at the MOE commented:

'For the current investment projects by Qaiwan, MGH, and KAR that we have in the generation sector, if the MOE had arranged a number of seminars, the matter [related to the BOO arrangements] would have been discussed. Several meetings had to be arranged

for different levels [of management] at the MOE. This is to show that private participation is crucial for the sector where the essential part is electricity generation, and that this is supported by the private sector - 97% of generation transmitted last year to our network was from the private sector. This should have been considered as a basic [matter] in order to bring talented employees together in the MOE itself from Sulaimaniyah, Erbil, and Duhok [departments and directorates belonging to the MOE in these cities]. I have not seen any [seminars or meetings] myself!' (S11, PSG)

As detailed in section 6.4.6.1, few senior managers at the MOE could express their concerns over the revision of contracts and risk allocations in the projects, and in issues raised in the process of industry development by accessing the industry events. In the private sector, similar opportunities were offered such as exhibitions at the industry level and meetings at the company level to broaden participation. A senior manager at one of the power plants gave an example of his involvement by stating:

'[it is going] to be a show, a power show, in our Kurdistan show in London. Actually, in the next few months, I cannot remember the day, but [the company] is gonna have a big compensator' (S1, PCG)

Another senior manager at one of the power plants provided an example of the company's top management meetings arrangement that maintained their involvement in the decisions by recounting that:

'There was a meeting last night with the [chair of the company] and he took all our opinions about many things not only regarding the power station' (S30, PCG)

To make the process accessible, interviewees from the GPG expressed that public participation can be established through providing mechanisms/methods for engagement by government authorities. The general public suggested mechanisms for engagement different to those of the other groups. Many residential consumers believed that consumer surveys, public hearings, and public meetings, can provide opportunities for involvement. Where most participants from the GPG showed interest in participation, they emphasised the importance of being able to raise their concern about social and environmental impacts. It was believed that public meetings or surveys would be more efficient ways of collecting

opinions and views related to a variety of strategic issues including: the reliability of the service, plans for reducing electricity consumption, the revision of selling tariff price, potential health and environmental impact, access to electricity, and job opportunities. However, they claimed that this requires the representatives from the public such as local/neighbourhood members, and the MOE to approach them, arrange for public meetings and ensure survey distribution. Moreover, the majority of the participants believed that consumers' views of the impacts of plans and strategies for developing the sector can be collected by these methods. A residential consumer in a focus group suggested that

'*It can be through surveys and by holding public hearings both with rich and poor households … [through sampling] by selecting representatives of both rich and poor neighbourhoods [to collect different opinions]. [They] have to do something with the poor and not the rich because the rich will not have any problems [with making any decision]'* (RC7.FGSL1, GPG)

Other interviewees also believed that the engagement needs the provision of information by the government, and education and awareness of the consumers about the issues and implications of operational projects and development decisions. As a residential consumer in a focus group commented:

'For Kurdistan, conducting surveys is good but you cannot give it to anyone [to fill it in] who does not know anything in this area… or how do people use the electricity and why?... the public should be educated, and through survey, hearings and seminars' (RC2.FGBA6, GPG)

Another consumer in the same focus group added:

'Who has information about anything in this country? No one has information on anything' (RC5.FGBA6, GPG)

The majority of consumers believed that the engagement process must be initiated during the early phase of the decision-making process. A residential consumer in a focus group, for instance, stated:

'*Taking opinions should be at the beginning [at the early phase of decision making process]'* (RC1.FGER3, GPG)

The engagement process requires that communication be established between government entities and the general public. Enhancing communication will help educate participants not only in terms of preparing them (consumers and residents near the power plants) for the engagement process but also of improving their awareness of the issues in the sector such as excessive electricity consumption, the methods of production, and the cost of the service. Through disseminating information about these issues, it was perceived by the participants from the GPG that involvement can be broadened. Many consumers raised the role of the media, religious groups, and education systems as a response to the need to educate the public about their environmental responsibilities. For instance, a residential consumer suggested about the media:

'Through the use of the media for education. For example, when we are watching a movie or a [tv] series, in other countries they use advertisements to show wasting electricity or water but ours are all commercials…. I cannot say all but 20% have awareness. This awareness is important because as you switch off a light you allow someone else to turn one on. This reality should exist. If it doesn't, it has to be nurtured' (RC2.FGER1, GPG)

The perception of the Environmental Board of the region supports the suggestion that educating consumers about environmental concerns should happen prior to their engagement. The representative of the Board commented on this:
'For the awareness and engagement of the people, we must benefit from the media, spots and publications, and NGOs, in particular, environmental organisations' (S43, PSG)

The interviewee also highlighted the active role of the Board in enhancing engagement. There were certain of the environmental impacts issues that the Board had been worked on and that would be forwarded to the Consultation Board established by the MOE. The Board's main focus includes the use of gasoil to run the power plants, the high number of private local generators, and excessive use of electricity by consumers. Mitigating the environmental impacts is considered by the Board as a priority of the Board. The interviewee believed that these issues can be discussed in meetings held by the MOE. According to the MOE law no. (5) of 2006 and article (4) which states the establishment

of a Consultation Board, the representative of the Environmental Board is included in the Consultation Board (Ministry of Electricity law, 2006). The Environment Board is seeking to hold more meetings and to encourage participation in international events to incorporate concerns about the operational PPP policy to reduce the environmental impacts. An interviewee suggested that if the current MOE law is properly followed, the engagement of the Environment Board will be secured. As he stated:

'I think there are good laws and decisions, but their implementation is not satisfactory. Mistakes appear during their implementation' (S43, PSG)

Participants from diverse organisations included in the RSG emphasised about their accessibility to the process the importance of using diverse methods to incorporate stakeholders' inputs. The members of provincial councils believed that the opportunity to participate in the process can be provided through the creation of committees related to the industry development projects. As a member of the council said:

'It is supposed to be through committees specified for the topic. For example, if anything to be done in the electricity industry in the Sulaimaniyah area, a member of the council, parliament, governorate, and industry, and the area should be included in that committee… in addition to NGOs' representatives. In this way, we can supervise [engage in the process]' (S50, RSG).

Interviewees from the Chamber of Commerce and Industry emphasised that the process of engagement must take place at an early development stage of PPP implementation. For the process to be successful, interviewees believed that cooperation among different stakeholders must be developed and that giving them access to the process through meetings in order to discuss industry issues was imperative. As a head of one of the branches commented:

'It [involvement] should be prior to making the decisions and regulations, and laws. It is necessary to contact the associated representatives in the private sector, and one of these is the Chamber of Commerce and Industry, to discuss regulations and policies…. they should send us requests so that our representative participate in meetings to discuss the advantages and disadvantages' (S45, RSG)

The interviewees from the labour union perceived that the reason of excluding them from the engagement process while pursuing development activities in the sectors of economy is not following the labour laws. In addition, if the syndicates belonging to the unions do not actively protect their needs and interests, accessibility to the process will not occur. The head of one of the labour union branches believed that their right for participation and engagement in the process would be secured if the enacted labour laws in the region were enforced properly. He commented:

'The right [of participation] is through the laws that are enforced. Meanwhile, the Ministry of Labour and Social Affairs also [supports participation] as we are in the triangle between the ministry and the Chamber of Commerce… yes, it is [the mechanism to participate] …. The syndicates also should be active and have a role when any law that is related to labour is made. They should have a voice. For example, in the adjustment of the retirement law in 2012, we had a petition and collected 1000 signatures to convey our interest as labours to the parliament and take the project to the government. That is another mechanism. If the government do not treat us lawfully, we can use other methods such as demonstrations, petitions and other ways' (S54, RSG)

The representatives from the areas where the power plants are located held different perceptions about the current participation mechanisms (e.g. meetings or hearings). In the interviews, the mayors argued that their engagement should be supported by law. To make the current mechanisms effective (conducting meetings with high government officials and the private sector), laws must be made to support their eligibility to raise issues related to the development projects in their areas. A mayor commented:

'We had several meetings in the COM on the issues related to our area and the demand of people for electricity. We have 100-150 villages that have not access to national electricity while these villages are rich in natural gas and oil resources: the resources of this country are located there. It is not only Kormor that has natural gas, we have Kontesente or Naftaw which is very rich in oil and it can be extracted at a low cost – but all is taken from our people. We are the link between the people and the high authority. At the moment that we are talking, we have several villages protesting because they do not have electricity. They do not have access to electricity in 2016! We requested for meetings with the COM to raise

this issue… we have used different methods…. but it [influence] has not been what we hoped for' (S53, RSG)

Another mayor also highlighted the role of law in protecting public interest and making their participation valuable:

'Since the private sector is given advantages by law [investment law], the only way you can get back [advantages for the public] is by law … you might be able to do this by law' (S52, RSG)

The majority of the participants believed that the public's opinions on social and economic issues must be expressed and incorporated in order to change their perception of distrust in the government and the private sector. The methods for expressing voice are different but most of the participants agreed on what represents a real opportunity to make their voice valuable. They believed that the element of 'access' must be ensured in the process. The preferred mechanisms have not yet been provided to the wider stakeholders. As the TOV highlights, for stakeholders to express concerns, the element of 'access' must exist in the process of involvement accompanied by opportunities to be heard. Hearing the expressed 'voice' depends on the 'standing' element of the TOV which provides stakeholders with the consideration of what have been expressed in a given opportunity.

7.3.2 Standing: Valuing Opinions and Views

Standing depends on access (Stohr et al., 2014). Most of the stakeholders commented that they have interest in expressing their voice but that decision makers might not value their concerns. If their voice is not counted, the process of engagement will lack standing. Despite different participation levels offered for the PSG interviewees and for the MOE employees who have access to several events, it was observed by most of the interviewees from the PSG that their opinions might not be considered and respected. A senior manager at the MOE commented that

'I am always ready to [express opinions] but one will speak out when one feels he has been listened to' (S18, PSG)

Most of the participants from the GPG shared the same perception as the PSG participants with regards to standing. They considered that the lack of standing in the process of engagement would accompany a state of distrust in the government, and that the decisions would not be in public interest. In reference to the political sensitivity attached to the government's actions, the participants expressed that that their views would be ignored. As a residential consumer noted:

'If [the government] wants to consider the public's opinions, let it conduct public surveys to collect them. In this country, whether the survey is conducted or not it is useless because the government works in the interest of [the private sector]. The interest of the political parties is considered above public interest. Since it is about private interest, our opinions are ignored' (RC3.FGSL1, GPG)

The perception by the participants of the RSG of a low level of standing indicates that decision makers do not appreciate input from those organisations and do not value their concerns. Most of the interviewees pointed out that although they expressed their concerns during meetings, these were rarely taken into consideration. For example, a high representative of one of the labour union branches mentioned many issues that the union faced in their participation in the development process. Poor consideration of the labour unions' role in the public sector was perceived as a cause for their exclusion and therefore for their contribution not being valued. The interviewee commented on the unions' struggles by stating:

'The existing laws do not allow us to work in the public sector but only in the private sector. It is not about to say that we have not been engaged. It is about that we work in the private sector but to what extent does the private sector enforce the laws as they should be? … we paid visits [to the government authorities] and shared our concerns [in regard to labour issues generally], in the media, on 1st of May, and requested the parliament and the Ministry of Labour to urgently work on our requirements. At the union and branches levels, we listed all the issues we have and asked the government [to respond] … however, does the government listen to us? This is the question.' (S56, RSG)

The extent to which standing and transparency are considered in the process reflects the Chamber of Commerce and Industry's view of effective participation. As a high representative of a branch pointed out:

'One of the factors [for successful participation] is listening. The question is to what extent does the government listen? Transparency is one of the factors for this [listening]' (S45, RSG)

The mayors, as representatives of the affected stakeholders, indicated that the reason for not valuing the expressed concerns of the affected areas was the lack of legislative support to make access effective. Discussing this subject, one of the mayors gave several examples where the decision makers would not adjust their decisions in favour of others' interest as there was no law to oblige them. Another mayor in an interview added that current mechanisms to express concerns have been unsuccessful:

'In meetings, hearings with all the representatives of the area, involving responsible people in all organisations… in visits of officials to the area, sending memos, requests…. above all demonstrations by the people of the area in the streets… all these have been used but until now, to this point we have not got the result we are aiming for' (S53, RSG)

The fear of not being heard was raised by a provincial council member as well. Different reasons can explain this, such as intention to protect the private interest and the intolerance of the government to welcome shared decisions. As a member explained in an interview:

'We are the link between citizens and the government. What [concerns] we have is for the interest of both the government and public…. Perhaps the government sees their actions as right. They [decision makers from the private sector] also might understand that we might protect the interest of the public sector strongly and some of their rights will be neglected, or some of the stuff that they want to achieve might be hindered by some concerns, or perhaps the people in charge of a project might have a private interest and that is it!' (S49, RSG)

It appears from all stakeholders' reflections that expressing voice is not enough if the process does not consider and value it. For voice to be influential, the two elements of access and standing lay the foundation to influence the strategic decisions.

7.3.3 Influence

It is critical to differentiate between voice and the degree to which expressing voice will be influential. The degree to which stakeholders can influence the decision-making process depends on access and standing. Most of the interviewees pointed out that applying the proposed traditional methodologies by the key decision makers, particularly by governmental entities would enable meaningful engagement and for their 'voice' to be influential. However, some stakeholders observe that 'voice' will not be influential due to several reasons. For instance, despite the importance of including diverse interests and input into strategic decisions, most stakeholders repeatedly mentioned the issue of political intervention in relation to government policies and decisions. This factor is thought to contribute to hindering their participation. In turn, influencing policy and development decisions or outcomes was seen to be difficult without eliminating this factor. As a senior manager at the MOE noted:

'[Expressing] opinions and holding consultations are important. For us, when the minister or someone else comes to [the department] we say our opinions. Whether they listen to us or take account of our opinions, that is another thing!' (S12, PSG)

The general public shared similar views:

'Everything is associated with politics and political interests' (RC2.FGSL1, GPG),

'Briefly, there is no listening to us but only to the political parties; when they decide on a company it is for that company!' (RC1.FGSL1, GPG).

The perceptions of the participants from the RSG also emphasise the necessity to eliminate private interests in order for the participation to be broadened and be influential. A high representative from one of the branches of the Chamber of Commerce and Industry, for instance, commented:

'In the KRI, influence [on strategies and decisions] can barely be observed because of the political interests that are considered in everything… this requires dismissing those people who are working for politicians, and eliminating the political interests in the government

authorities' affairs. If this have not been done, nothing will be successful in the KRI' (S45, RSG)

The interviewed members of provincial councils support the view that the decision space created must be by the support of law so that engagement then can influence the decisions. As a member commented:

'According to the [provincial council] laws, there are several civic methods that we can use in cases where dialogues would not work. However, I think, to be realistic, through dialogues we can [influence]' (S49, RSG)

According to labour unions, influencing decisions requires co-operation between the labour union and the private sector. A high representative of one of the branches of labour union maintained that all issues (regarding worker rights, power plant visits, work conditions, safety, etc.) can be solved if there is a good degree of cooperativeness and responsiveness in dialogues, and forums that could be arranged for the purpose of participation. The head commented on the influence on the decisions by stating:

'Certainly [by participation you can influence decisions]. It is our responsibility to monitor the rights of workers in terms of safety, profession, working hours, wages, holidays, etc. If we are cooperative with the project owners and their management, we can identify all shortages whether in safety regulations or working hours. Our primary objective is to solve issues through dialogues with the private sector. This is to establish a good start and achieve what we aim for' (S56, RSG)

For a voice to be influential, most participants from the RSG and GPG believed that other factors need to be considered aside from access and standing. There should be efforts to eliminate political intervention, reinforce current laws, and encourage responsiveness. The various mechanisms that are proposed by the stakeholder groups are thought to influence strategic decisions if they are designed to constitute the potential engagement of various stakeholders.

7.4 Conclusions

This chapter attempted to answer the third research question, 'To what extent does the governance of PPPs allow for inclusive participation in the strategic decision-making process? How can this participation be influential?'. In exploring widening participation in governance of BOO projects and the development of the wider electricity sector as a whole, informed by the SCF, two categories have been identified of the findings from the interviews and focus groups with diverse stakeholders of the BOO projects are found. The first theme which served to answer the first part of the research question 'to what extent does the governance of PPPs allow for inclusive participation in the strategic decision-making process?' by organizing the data according to Pretty's typology. The findings showed that the degree of participation was only allowed consultation with few MOE departments to take part in strategic decision-making. The wider stakeholders remained unable to participate in strategic decision making as there were no consultations. The degree of participation can be noticed as a participation level that is beyond the 'non-participation' or 'manipulation' type or as being informed after the decisions have been made. The narrowly focus on participation by consultation or the low level of participation offered for only few departments at the MOE in policy development and implementation did not allow for shared decision making.

The theoretical proposition that 'when the diffused governance structures that allow a wider participation of all affected stakeholders to participate make the PPPs governance, the public interest can be attained' in this study suggests an explanation for the reason that the governance issues emerged and that the wider stakeholders' objectives in the governance process were ignored. Because of limited participation in the strategic decision making and development process, the wider aims and objectives of the public are not democratically chosen and that outcomes are not in the public interest. Although the participation is a key aim of the SCF, it has not comprehensively addressed the effective ways for the 'voice' to be influential. In addressing the third research question, the study reviewed and incorporated Pretty's (1995) participation typology and the concept of 'Trinity of Voice' by Senecah (2004) in order to explore how widening participation that can providing inclusive governance structures of the BOO projects and development process could be achieved.

The theme of stakeholder participation in governance served to answer the second part of the research question, 'How can this participation be influential?'. The findings that answer this part of the question are organised into three sub-themes that showed the design of an effective process to engage stakeholders to have 'voice' in the strategic decision-making process that should provide the elements of access, standing, and influence. As the theoretical position of SCF is derived from the hierarchical structure of decision-making, the concerns of the public's ability to raise their voice in a meaningful way and for effective stakeholder engagement to be realised, the findings support the suggestion of the study that these elements of the concept of Trinity of Voice by Senecah (2004) have to be considered.

Chapter Eight
Discussion of Findings and Conclusions

8.1 Introduction

This chapter presents the discussion of the important findings that the study has arrived at, including detailed discussion and concluding remarks on the performance of PPP projects, the governance structures formed for the sector being reformed through PPPs, and widening participation in the governance process. Some limitations of the theory and the study, and several suggestions for future research on PPPs are also outlined.

The purpose of this chapter first is to bring together all the findings in the findings chapters and discuss them to provide a clear picture and highlight the contribution in the PPP governance area. The main research question that this research attempted to answer was 'How PPPs might be in the public interest?'. This chapter addresses how a democratic form of governance make PPPs operate in the public interest. As the objectives for strategic sectors such as electricity sector were not chosen democratically, the sector being reformed via BOO has not performed to achieve outcomes in the public interest. The strategic choice made by few key public and private parties, who dominated the strategic decision making. This in turn affected the performance of the BOO projects and the electricity sector as whole. The performance, assessed in relation to wider strategic objectives, only showed narrowly determined objectives pursued and leading to outcomes that are not in the wider public interest. In that case, the state of 'strategic failure' is present. The matter of ignoring the wider aims and objectives of wider stakeholders is related to governance structure that has been formed to make strategic choice for the sector. In other words, possessing the power of strategic decision making in the hands of few parties made the strategic decisions to be made despite the interests of those who are directly and indirectly affected by these decisions. This has raised many governance issues and implications on the wider public interest. Given the link between the strategic failure and exclusive governance structure of the sector, the level of participation allowed in the governance process is very limited. However, widening participation and providing mechanisms for stakeholders to have 'voice' in the governance process required the effective engagement process that should provide access, standing and influence. With such elements to be provided, the voice of the wider stakeholders can be influential and affect the decisions of key parties.

This chapter is structured as follows. First, Section 8.2 discusses the key findings about the performance of BOO projects and the electricity sector and shows that ignoring wider objectives of the wider public has impact on the achievement of outcomes in the wider public interest. Second, Section 8.3 discusses the structure of decision making power and wider governance issues raised within the governance structure and shows the wider impacts on the public interest. Third, Section 8.4 discusses widening participation in the governance process and show how 'voice' can be influential. This is to indicate to what extent the BOO governance allows stakeholders to exercise their voice and can affect the decision makers' decisions. In Section 8.5, the whole findings in the sections will be brought together to look at the big picture. Section 8.6 highlights the limitation of the theory applied in this study. Then, the chapter concludes with practical recommendations concerning PPP policy in the KRI, and the broader use of PPPs.

8.2 First Key Finding: Ignoring the Wider Objectives of Stakeholders of the Projects and Presence of Strategic Failure

The rationale behind the KRI's implementation of the BOO model points to the necessity of meeting several efficiency challenges of the huge investment required for the development of the electricity sector, expansion of the electricity generation capacity to meet the rapid growth of electricity demand, and better management of the generation sector. Bringing the IPP investment into the delivery of power projects and quick installation of capacity of more than 6000 Mw are examples of improvements that the BOO impact on the efficiency of the electricity sector endorsed. The majority of the public and private sector actors appreciate the current results that merit the achievement of persuasive performance objectives for using the BOO scheme for the development of the sector.

The government effort to execute the decision of IPP participation, which has resulted in some values for the sector, was undertaken at a time of macroeconomic stability in the region. The perspective of wider stakeholders of the projects attached to the development outcomes suggest that the committed public budget to the BOO contracts has a role to bring investment in the sector. This is in addition to the allocated incentives for the IPPs. Furthermore, the investment environment influenced the decision of the private companies to develop more IPPs in the region. The MOE entrance into long-term PPA agreements has

assured a stream of revenues for the private companies. This has also effectively contributed to the interest in financing the power projects in the region. It can be inferred that the attractive investment environment in the KRI gave the potential for some positive outcomes from the IPPs. This has been highlighted in the IPP analysis literature as a factor that leads to positive development outcomes (Gratwick and Eberhard, 2008)

The performance of the BOO projects analysed indicates a number of factors that are responsible for successfully overcoming some of the sector's efficiency challenges. Superior financial and management capability of the private sector has led to the investment of approximately US$ 4.7b to build a number of power plants in the region and the quick completion of these projects. The IPP framework has contributed to some positive development outcomes (more power stations and an increase in capacity of generation), which have altered the poor state of the electricity sector. The better project management by the private sector, especially at the construction phase, through the selection of better technologies, discipline of controlling the budget and scope of projects has contributed to the value of the involvement of the private sector. Such advantages indicate better management of provision of infrastructure and delivery of public services by the private sector (Malgas et al., 2007; Russell et al., 2006). The allocation of the design and construction risks to the EPC contracting companies on a turnkey base have motivated the contractors to rely upon the best project management tools and to bring the plant into commissioning phase within budget and timescale. This performance analysis also confirms that the greater knowledge gained by the project companies subsequent to the approval of more IPPs and progress over the project stages is associated with reduction of time overruns for the fast completion of the projects (Raisbeck et al., 2010).

The power projects are appreciated in terms of fast delivery and better operational management under the BOO contracting model. The operation and maintenance of the plants by the private sector's management seems superior in cost savings relative to the construction costs. This must also be considered as it attributes to the PPP (Trebilcock and Rosenstock, 2015). Since the private sector is profit-driven oriented, many efforts have been made to increase efficiency such as bringing in necessary expertise to the project site whether technical, managerial or financial, and more attention to operational cost management and the maintainability of the power plants. This suggests that the rationale of the private sector involvement has not only ensured financing in public infrastructure

investments but also the incentive for companies to reduce their operational costs, concluded by Hoppe et al. (2013). Under a partnership arrangement the private sector has incentives for greater efficiency, this has been highlighted in the PPP literature (e.g. Posner et al., 2009).

Even though the BOO projects' performance analysis points to the importance of meeting efficiency objectives in terms of satisfying government requirement, time performance, and delivery of the project within budget (e.g. Henjewele et al., 2011; Raisbeck et al., 2010; Doloi, 2012; Hurk and Verhoest, 2015), the emphasis of the key BOO actors on achieving these performance objectives has shown 'result-orientated thinking' (Takim and Akintoye, 2002). These are principal justifications that articulate favouring BOO over the traditional procurement. However, satisfying these criteria does not mean that many of the other impacts on the sector's efficiency are not vital in the evaluation. This narrow strategic perspective of the key parties in setting the performance objectives of BOO projects does not include many other operational efficiency performance objectives. Table 8.1 lists the indicators that provide wider objectives to be pursued for successful BOO projects based on the SCF analysis. The Table also provides a summary of the key findings, based on wider stakeholders of BOO projects, in comparison to the narrow perspective of key involved parties.

The generic perception about the efficiency of the electricity sector suggests that, for the BOO projects to perform successfully, it must lead to low service provision costs, affordable and reliable electricity, quality contractual process, appropriate risk transfer and management of the risks involved, utilisation of technological advancements and bringing in innovation to the sector, and the wider public benefits of better service coverage, more job opportunities and fewer environmental impacts.

For those BOO projects examined, it is evident that a huge amount of the total cost of generated capacity is undertaken by the state, due to a high priced PPA agreement, excessive costs on the local government authorities for paying fuel supply costs during the long-term contractual agreements, and substantial subsidy by the government due to low retail tariff structure. This explains that, under BOO contracts, the public sector has not secured the provision of the service at a lower price. As the PPP literature highlights, meeting the public need must be at the best cost to the public sector (e.g. Ismail and Haris,

2014). The procurement route of BOO requires thorough feasibility studies at the initiation stage to evaluate the procurement options and estimate the cost of the service to be purchased. This confirms consideration of the feasibility study as a critical success factor for PPP, highlighted by Ng et al. (2012). The process must also be accompanied by the creation of a competitive market to open the sector for competitive price of electricity to be purchased from the IPPs. As it is believed, the main driver of efficiency is enhanced competition, in accordance to contention by Smith and Trebilock (2001).

The issues of unavailability of feasibility studies and the prerequisite of introducing competition in the energy market made agreement on the BOO contract terms in the interest of the investors. The impact of BOO contract obligations on service provision costs and the reliability of the service is highlighted in the BOO projects analysed. For better electricity service provision, more capacity is supposed to be generated to meet the ever-increasing demand for electricity in the region. Evidently, there is expansion in the capacity of generation, but due to regular undersupply of fuel and transmission failure, and unhealthy consumption of electricity, the government has not been able to meet the demand of electricity. As of 2015, the demand on average in the region was 5353 Mw, but only 2417 Mw had been supplied by the IPP projects. The analysis indicates the unreliable electricity provision remains unresolved if the necessary actions are not undertaken. The effects of risks extended from the issues of fuel undersupply (the poor development of the natural gas network to connect the stations), not expanded transmission network to minimise load problems and failure, inappropriate allocation of fuel provision obligation to minimise market and demand risks need to be mitigated. Risk allocation is a primary measure of assignment between the parties to deal with the consequences of risks (Bing et al., 2005). A key driver of success is risks should be transferred to a party that is best able to manage them at the lowest costs to improve cost efficiency of PPP (Sarmento and Renneboog, 2014). As the IPP involvement must assist the reliable electricity supply by the MOE, the potential risks should be managed to meet this requirement. Appropriate management of transferred risks has to be fully integrated into efficiency performance objectives that the BOO projects aim to achieve.

While some improvement in electricity hours supplied to the public can be seen, the implication of the electricity supply shortage for electricity costs for consumers (who pay two bills for alternative electricity provided from the local generators with fewer equivalent

capacity units) is critical. There is only the MOE, as the only supplier, in the electricity supply market. This means there is no any other choice available for consumers to access to a reliable service. The role of the government in BOO must progress according to proper project scope description and clear plans (how effectively resources should be dedicated to the service provision) for the requirements of an efficient electricity sector. A dominant factor that has contributed to the unmet reliable electricity service is the estimates of fuel required for the stations by the state, which are not well addressed. The regular undersupply of fuel has caused stations to shutdown turbines or to run only half of the units to generate capacity. This indicates that the impact of the inability to match the supply with the electricity demand forecasted is largely on the consumers both residential and industrial.

The change in the governance of the sector has not resulted in improved operational efficiency indications, meaning that the government in this process commit more resources to the projects but in return obtain less efficient service (there is not yet a balanced demand with supply of electricity yet). The tendency of the government to pay the same fixed capacity charge specified at US$ 3.2 cent per kilowatt/hour to the availability rate payments for undelivered service and excessive fuel provision costs make a huge public budget to be spent in the interest of the private sector. These costs and risk factors have taken away the success of BOO implementation for effective and efficient development of the electricity sector. It was noted that the commitment of the government to these projects has impacted the public expenditure i.e. a huge amount to be spent only in the electricity supply service, regardless of the impact it may have on the development of other sectors in the economy (Cost Analysis Report, MOE, 2010). The ineffective use of public funds in the sector is not in the public interest. This also raises the question of 'indirect payment' by consumers (Li et al., 2005a). Where the public sector, acting on behalf of the public, is required to pay for the PPA and availability rate payments (which are paid because of undersupply of fuel in running the units or/and inability to transmit the generated electricity), it is the public budget spent on the service in the interest of the private sector.

The cause of these outcomes is the poor quality of BOO contract exchange that would leave more serious future risks and impacts on improving the efficiency of the electricity sector, a salient issue of practice of contracting that is highlighted by Reeves (2008) and Van Den Hurk and Verhoest (2016) in the PPP context. The involvement of politics in ex-post contracting that prevented competition from taking place in the energy market,

opportunistic behaviour by the decision makers, and limited relations with the stakeholders (e.g. experts in the field) have caused the practice of contracting to be distrusted by the wider public. The impact of monitoring and enforcing the BOO contracts, which have not strengthened the commitment of key BOO parties towards other stakeholders, has created more service provision costs on the government. Analysis confirms that the risks associated with fuel supply due to delayed expansion of the natural gas network and grid expansion are increased because there is no full commitment to the purpose of developing the sector. Another factor is lack of scope or not clarity of project requirements by the public sector (Farquharson et al., 2011). The efforts towards developing the generation sector require that the BOO actors to develop shared understanding. Johnston and Gudergan (2007) suggest that the operation of PPPs to be in the public interest is challenged because of lack of knowledge and experience or no shared understanding of the actors.

The reduction of negative behaviour and the pursuit of opportunism of decision makers can be obtained when transparent reform and better relations with the project stakeholders are considered. According to practice of contracting, the quality of contracting of procurement affects the achievement of dynamic efficiency. The focus on quality of contracting is to constrain the private interests and minimise governance challenges. The analysis shows that the behaviour of the government in the BOO contracts is questioned because of not being a responsible actor to safeguard the financial expenditure for the benefit of the public. It has become a medium to allow more political intervention to pursue private interests in guiding the process. There is a need to facilitate an implicit social contract between the parties and other stakeholder groups, according to contention by Johnston and Gudergan (2007). This is required in order to eliminate threats to the trust between the BOO stakeholders in developing the electricity sector's efficiency.

It was widely noted by wider stakeholders, in the procurement process, that the strategic behaviour of the government is not shaped around the decision makers intention to make the BOO projects contribute to the significant transfer of innovative solutions. This is aimed to improve not only process capacity but also to bring appropriate tools that would help reliable electricity provision (efficient types of power generation machines and improving consumption patterns to reduce energy waste by consumers). Because these BOO contracts are prone to fuel risks and relative costs in practise, the better operation efficiency of the plants are less expected. The capacity for innovation might be restricted

due to lack of an evidence base, in particular risk management, as highlighted by Mulley and Walters (2014).

It is critical to recognise that the inclusion of wider stakeholder groups provides a wider perspective of actual performance of the projects in capturing the diverse objectives of the projects' stakeholders. The stakeholder groups have identified critical conditions that should be accomplished in order to bring more efficient sector. It was noted that a reform plan must enhance the potentials for the private sector's participation with clear long-term objectives for its strategic vision. This might include not only the BOO objective for financial and management objectives but also involve wider stakeholders' objectives of more employment opportunities, local development and environmental impact consideration, and more service access compensation to affected stakeholders (residents of nearby power plants). These objectives should be tied in the efforts for better performance of BOO projects.

In assessing this initiative, many qualitative performance elements identified emphasis on aspects that are beyond the scope of the interests of the partners involved. Even though the impact of BOO projects on employment is not yet clear, most of the employment issues have been regarding efficiency consideration by private companies (employee productivity). The perception in the PPP literature points out that employment is not affected by the method of procurement (e.g. Cheung et al., 2010). However, this analysis confirms that the focus on employment productivity might cause the future employment in the sector to be affected. This is consistent with the concern of employment reduction highlighted by Trebilock and Rosenstock (2015). To make BOO implementation successful, a critical factor perceived is more opportunities to be provided for local employment, job security, scholarships and flexibility of offering placements for training. Another critical concern suggests better electricity provision (in terms of more hours of electricity to be supplied) for the affected stakeholders. The perception of more community development opportunities and environmental issues suggest that the aims of the wider benefits serve as another indicator to determine the overall performance of BOO projects.

While with all these risks are yet to be solved, it is not clear until when the government would be able to incur costs and other implications of BOO projects on local developments and quality of service provision. The BOO impacts might lead to the government suffering

from certain losses before the end of the agreements. This is beside the concern of consumers about electricity bills paid for interrupted electricity provision from the MOE. Since BOO projects are there and will operate for 15 years, the necessary actions mentioned earlier should be undertaken soon. The analysis also suggests the sector reform must accompany the appointment of appropriate regulations for investment, a revised labour law for better employment terms and building closer relations with all interested stakeholders, including experts and environmental board. With the existence of these issues, the 'strategic failure' is evident in the electricity sector, with a similar conclusion derived by Branston et al. (2006b). This finding extends the debates by suggesting that the way to achieve these objectives is through inclusive governance structures and adds to the body of knowledge by placing importance on the wider public's objectives being pursued in the strategic decision-making process (Branston et al., 2006c). The question regarding the type of governance structure to be formed for PPPs and the implications of governance structure has on the public interest will be addressed in the next section.

Table 8.1 Summary of Themes Identified on Perceived Performance of BOO Projects with Factors Responsible and Development Outcomes Perceived

Elements (Objectives)	Wider stakeholders Indicators	Key private and public sectors Indicators	Perceived development Outcomes
Efficiency	**Cost of service provision:** 1) High priced PPA 2) Excessive government obligations have led to high fuel supply costs and availability payments 3) Inability of government to recover the service cost as selling tariff is kept with low revenue from associated consumption bills	**Efficiency sector challenges:** 1) IPP investment has led to an increase in the number of power plants 2) Generation capacity improvement because of better capability of the private sector 3) Timely completion and operational solutions as the private sector is more capable of managing project schedules and delivery of plant	Burdens on the public expenditure More capacity installed in the generation sector Quick completion of power plants
Service Quality	**Reliable Electricity provision:** 1) Inability of the government to meet the demand (regular cuts in the service) because of less generated capacity caused by undersupply of fuel 2) Transmission issues and ineffective consumption patterns	**Coverage of Demand:** 1) Unmet demand because it is always higher than supply of electricity 2) Transmission network load problems and mismatch of its development with the generation sector and ineffective consumption patterns	Unimproved service quality High cost of electricity on consumers (two bills are paid)
Quality Procurement Process	1) Competition in the market No competitive market in the electricity generation sector because of political intervention 2) Ex post political intervention in activities such as fuel provision 3) Negative behaviour and opportunism No clear role of the government and intention to allow the private interest to be pursued in the procurement process 4) Not established transparent and institutional reform 5) Less Public support	1) Introducing Competition The power generation market is opening for other investors - low degree of competition is created 2) No full commitment to the sector's development vision The generation sector's development has not reflected the commitment to expand the natural gas network, transmission network and distribution sector	High priced PPA and increase of cost per unit of electricity Excessive BOO projects related risks Ineffective use of the public funds

Table 8.1 Summary of Themes Identified on Perceived Performance of BOO projects with Factors Responsible and Development Outcomes (continued)

Elements (Objectives)	Wider stakeholders Indicators	Key private and public sectors Indicators	Perceived development Outcomes
Innovation and utilisation of technological advancements	**Facilitation of innovation:** 1) Not enhanced investment and introduction of innovative solutions in the sector (the use of new technological advancements in the power generation process) 2) Not brought innovative approaches (utilising renewable energy and tools for better consumption patterns) 3) Not utilised skills, and neglected technical knowledge of the public sector and established collaboration links	**Adoption of Innovative approaches** 1) Quick solution for the electricity provision driven the approach of type of the power plants 2) Investment in new technology is evident (new style of machines and conversion to combined-cycle) 3) Transfer of best practices to the sector through appointing international staff and collaborative working with key private companies	Not facilitated innovative approaches for better quality and efficiency of the sector.
Management of transferred risks	**Appropriate management and mitigate of risks effects:** 1) Inappropriate management and mitigation of risks at operational phase including demand risks and revenue compensation (availability rate payments and transmission failure costs) 2) Inability to mitigate fuel supply risks because of poor examination of potential risks (natural gas transmission network expansion) 3) Not considering unforeseen conditions (political risks and regular Payment failure) 4) Less effective management of legal risks because of less detailed contract terms and investment law	**Appropriate management and mitigate of risks effects** 1) Appropriate transfer of construction risks to the private sector 2) Time was needed to understand allocated risks of fluctuating electricity supply and accepting demand risks 3) Inability to keep the current risks to minimum 4) Not considering unforeseen conditions for fuel supply risks and payments 5) Within the framework of invest law the legal risks are resolved	Better management of construction costs and time risks Huge public expenditure for the sector Liability of the public sector for huge payments (availability payments and losses costs) Unreliability of electricity supply
Wider public benefits	**Employment opportunities:** 1) Not included objective of employment opportunities 2) Fewer local job opportunities (low level of work)	**Employment opportunities:** 1) Jobs assigned to international staff that could leverage the knowledge of IPP and BOO delivery to the sector 3) More local skilful staff appointed because of untrained work force and focus on employment productivity	Unclear impact of job growth in the sector

Table 8.1 Summary of Themes Identified on Perceived Performance of BOO Projects with Factors Responsible and Development Outcomes (continued)

Elements (Objectives)	Wider stakeholders Indicators	Key private and public sectors Indicators	Perceived development Outcomes
Wider public benefits	**Local development:** 1) Not integrated wider objectives of creating benefits for the local (e.g. training, natural gas city and scholarships) because of poor strategically driven investment plan and opportunistic behaviour 2) Not considered preparation and participation of local people because of incoherent investment law and labour law	**Local Development** Job expansion along BOO implementation through cooperation with the local if had recruits	
	Environmental concerns: 1) Raised environmental impact and safety issues in the power stations area 2) Negligence of environmental law and regulations to minimise pollution and effects on agriculture sites 3) Not considered that health issues might arise because of the local generators used to supply electricity	**Environmental impact** 1) Environment Board not involved for environmental concerns because of not developed strong relations among interested groups earlier 2) Not considering health and environmental impacts of local generators	Underserved the local development objectives Less pollution control and health and safety considerations
	Service Coverage and Access: 1) Insufficient transmission network improvements to minimise service interruptions 2) No opportunity created (greater number of available hours of electricity needed) to target more underserved segments and to lower cost of electricity on the consumer 3) No service compensation to affected areas is integrated to affected areas	**Service expansion and Access:** 1) No clear vision to have more expansion in the transmission network and improving access to the service 2) Emerging risk factors causing cuts in the electricity provision, high rate of losses and electricity theft	Less expansion in the transmission sector Risks led to more public expenditure

Source: interviews and focus groups

8.3 Second Key Finding: Exclusive Governance Structure Formed for BOO and Wider Implications on the Public Interest

The BOO experience in the KRI context has faced many governance issues. These issues have emerged from the way the governance structure is formed for the PPP policy development and strategic decision-making. The conceptual framework developed for this chapter suggests that for the governance of BOO projects and the sector as a whole to be in the public interest, the governance structure must consider the inclusion of the project stakeholders in the strategic decision making and prioritise democratic concerns. Otherwise the implications of strategic decisions for the development of the electricity sector on the public interest will be evident.

The current governance structure of the BOO projects and the electricity sector in the KRI context implies that, after the BOO implementation, the exclusion of the wider stakeholders in the decisions about strategic issues (such as PPP type selection, setting BOO contract clauses and assigning risks, project scope and appraisal, location of the power plants, etc.) still continued. Involving private interests in the electricity sector has been perceived as unsuccessful in aligning the diverse interests of stakeholders affected by and implemented strategic and development policy decisions. The concentration of power in the COM highlights the intention to exclude various stakeholders and run the PPP policy implementation in the interest of a few IPPs (project developers) and governmental authorities, rather than the wider public interest. Exclusion of various stakeholders in the process of design and practice of partnerships has been underlined as a critical concern in the PPP literature particularly when considering implications on the benefits of projects (Fischbacher and Beaumont, 2003).

The analysis of the BOO governance structure suggests that the structure requires a broader inclusion of stakeholders from the public sector (departments at the MOE and related ministries), interested groups (Chamber of Commerce and Industry, Labour Unions, Provincial Councils), the private sector (interested private companies), the general public and residents of the affected areas. This needs to be supported by a well-developed policy framework for the delivery of PPP policy in the electricity sector. It has been perceived by the majority of the participants, such as employees from the MOE and MOIT, that implications of the dominance of high governmental officials from the COM and their

retention of power over the BOO implementation process are evident on competition and the performance of the projects. This confirms the findings from the other cases in the PPP literature, in particular with regard to the dominance of a few elites at the planning phase to enter into a partnership project. This restricts competition and consideration of alternative methods for procurement (Landow and Ebdon, 2012).

Overall, the BOO experience in the KRI case analysed shows the state, from the perspective of the SCF, of strategic failure. The reform in the electricity generation sector did not allow for meaningful consultation but instead concentrated strategic decisions in the hands of a few elites from the COM. According to Branston et al. (2016), the state of strategic failure is visible in the case of the UK energy market. Although this case and that of the KRI are different in terms of market structure and the existence of market regulators, the implications of concentrating strategic decisions in the hands of a subset of people with private interests on competition are evident.

This governance analysis also provides insights into other factors that indicate the implications of strategic decision-making structures on the delivery of the BOO projects, and the involvement of stakeholders in the governance process. The structure option adopted to deliver the BOO projects can be described as ill-suited to satisfy the requirements of management and project governance. The government depended on a weak structure, and utilised existed departments and employees at the MOE to operate the BOO projects. This structure has led to insufficient interactions between different governmental departments, the private sector, labour unions, Chamber of Commerce and Industry, affected stakeholders, Environmental Board, provincial councils and consumers. The government's choice of which structure to apply depends on the expertise and knowledge about the risks to be managed, and the size and complexity of PPP projects (Wilson et al., 2010). The government must adopt a structure that can provide expertise and improve capabilities in which sometimes through the establishment of a separate authority these can be met. The creation of a separate authority via legislation is classified as type III by Wilson et al. (2010). The current findings from this analysis confirm the need for legislation to authorise a unit that can act as the most efficient and effective structure to deliver the BOO projects. In the KRI case, where the existing departments at the MOE were relied on, there is a need to integrate the requirements of accountability, clear responsibilities,

responsiveness and effective communication in the governance of the projects, in order to achieve proper management over the whole process.

Even though there was little response to satisfy the requirements of the governance of operational BOO projects (assign reporting and supervision committees from few governmental entities), the relationships in the governance structure are poorly developed. For the relationships to be developed, the structure must have interfaces among the governmental departments, the interested groups and the general public. The analysis confirms that, to some extent, the developed relationships in the broader structure of decision making enhanced mutual trust between the involved actors from the public and private sectors and supported their interaction. However, it is critical to recognise that the deeper insights into the wider perspectives of stakeholders indicate that public trust in the BOO governance is even more important than the internal trust between the key involved parties from the public and the private sectors. Public trust is considered to be a critical factor that is related to developing relations and facilitating democratic governance (Tylor, 2003 in Tsang et al., 2009). Distrust of governance and key decision makers emerges from the way risks are perceived and the degree of power held by the involved actors. The stakeholder groups focus on several critical dimensions of trust that must be satisfied to enable public trust in the PPP policy makers. The dimensions are competency, concern, integrity, openness, and reliability. The findings confirm only these dimensions list that is developed by Kasperson et al.'s (2003) in Christina et al. (2016).

Given the lack of public trust perceived by the various stakeholders, increased attention to the challenges of accountability and transparency is required. The BOO implementation has implications for accountability and transparency in governance. There are several reasons to indicate that the accountability dimension was exacerbated after the BOO decision. The absence of a regulatory and policy framework, lack of monitoring procedures and oversight, and poor consideration to disclosure of information and accessibility undermined accountability and transparency. The perception of democratic concerns related to accountability and transparency is strongly present in the KRI experience with BOO implementation. According to Willem and Dooren (2001), the erosion of the traditional accountability after the shift to partnerships is caused by the diffusion of tasks and responsibilities between public and private actors. The analysis suggests that the BOO implementation requires clear distribution of responsibilities and direct control by account

holders. This should enable the government better respond to public demand and the strategic vision of the public good (Brinkerhoff and Brinkerhoff, 2011). To achieve this, conformance to the BOO purpose and shared understanding of the key actors are important (Johnston and Gudergan, 2007). Committing to the partnership vision can improve the effectiveness of the partnership projects whenever political and economic challenges present themselves (Goldstein and Mele, 2016). This finding extends the debate on the need for a democratic governance form that should be inclusive to allow the public with diverse interests to be incorporated (Bailey et al., 2006; Branston et al., 2006b), and add to the body of knowledge that show that the democratisation of PPP governance is important (Hodge and Greve, 2010, Skelcher, 2010). Since the wider impacts of BOO on the public interest further emphasis the widening participation in the governance process, it is important to explore to what extent does BOO governance allow for public participation and their participation can be influential? This is an important finding of the governance analysis that the next section will address.

8.4 Third key Finding: Level of Participation and Trinity of Voice

The argument about widening participation in BOO governance raised two important matters: the level of participation that is allowed for the wider public that enables them to exercise their 'voice', and whether their participation will be influential.

The level of participation allowed in the governance of BOO is limited solely to the 'consultation' of few senior managers and departments at the MOE about the strategic issues. The low participation level requires efforts to alleviate democratic concerns. The meaningful consultation with stakeholders has shown benefits for the analysis of VFM and for the preparation for PPP implementation, as investigated by Reeves (2013) who studied PPP projects in Ireland. Referring to Hodge and Greve (2010) have also criticised PPPs for limited participation and public input that in turn diminish accountability. In line with Reeves (2013), stakeholder consultation and participation are believed to be important for the success of PPPs. A finding in the KRI context is that the concerns of accountability and transparency issues are emphasised because of limited participation. This is beside the democratisation of the governance through widening participation that ensures the development of the sector according to the aims and objectives of the wider public, drawing upon (Branston et al., 2006c). Consequently, the engagement of stakeholders will lead to

positive outcomes (e.g. Greve and Hodge, 2010; Forrer et al., 2010; Nederhand and Klijn, 2017). This is to create a 'triple win' scenario among PPP stakeholders including the public sector, the private sector and the general public (Ng et al., 2012).

However, various stakeholders suggest straightforward actions to widening participation in the governance process of BOO projects. The present analysis has demonstrated that traditional public participation mechanisms can support meaningful stakeholders' involvement. Accordingly, the democratisation of the governance process requires more effort to widen participation and provide mechanisms for the meaningful engagement of diverse stakeholders (Branston et al., 2006b). Through these mechanisms the public might be able to affect a few actors' decisions in the governance of BOO projects and the development process but the perception of stakeholders regarding the design of an effective and functional stakeholder involvement process through which they could have a 'voice' in the BOO governance and development decisions in the electricity sector of KRI is important. For the stakeholders' participation to be influential, the concept of TOV laid the foundation of an effective design of stakeholder engagement. The elements of access, standing and influence must be provided along the involvement of stakeholders in the process.

Regarding the challenge of engaging stakeholders to influence decisions and have 'voice' in the process of making strategic choices, the interviews and focus groups provided rich insights. The conclusion has been that when stakeholders are provided with the access, standing, and influence their engagement will be successful. However, several efforts need to be made prior to designing a stakeholder engagement process: eliminate political intervention, reinforce current laws, and encourage responsiveness of the stakeholders.

The findings indicate that mechanisms would not be enough if the public are not able to express themselves and be heard, as believed by (Popovic, 1993). The findings support the belief that the public's opinions on social and economic issues must be expressed and incorporated. There are various methods for expressing voice. They should provide a real opportunity to make the expressed voice valuable.

It is important that the element of 'access' must be provided in the process of public engagement. As highlighted in the TOV concept, the element of 'access' needs to be

accompanied by opportunities for the public to be heard. The findings assert that hearing the expressed 'voice' depends on the 'standing' element of the TOV. This element focuses on the consideration of what have been expressed in a given opportunity. It is important that the expressed voice in the process will be considered and valued. When these two elements have been considered, the voice will be influential and the foundation to influence the strategic decisions is formed. Therefore, for a voice to be influential, other factors need to be considered along the access and standing elements. These include the efforts to eliminate political intervention, reinforce current laws, and encourage responsiveness. The various proposed mechanisms and TOV elements provide the functional design of process stakeholder engagement to influence strategic decisions. The TOV concept provided the basis for developing an effective public participation process in the governance and decision-making processes in PPPs. These findings extend the debate on the need for a democratic governance in combating limited public participation (e.g. Hodge and Greve, 2010), and add to the body of knowledge that shows that stakeholder engagement in PPPs is needed to solve disputes and conflicting objectives of interested stakeholders (e.g. Jayasuriya, Zhang, Yang, 2016). Prior to finding strategies and mechanisms for engagement, these findings bridge the important knowledge which emphasises that TOV elements need to be provided for the design of a functional process of stakeholder engagement and for the stakeholders to influence strategic decisions.

8.5 The Bigger Picture of Findings: Democratic Governance of PPPs

The purpose of this study was to assess the governance of PPP projects in the context of the electricity sector of the KRI. The study aimed to address a critical concern that has been raised in the PPP literature, which is the change in the structure and mechanism of governance of the infrastructure sectors calls for the analysis of governance and how this governance fits into a democratic context (e.g. Hodge and Greve, 2010; Skelcher, 2010). Therefore, the study focused on exploring democratic governance of the market-based reform of the strategic and important sector of electricity through PPPs, and how PPP projects might be in the public interest. The study selected PPP projects in the context of the electricity sector of KRI. This study has enriched the PPP literature and our understanding of PPPs through a case study investigation of a developing economy.

The study drew upon the basic ideas of the Strategic Choice Framework (SCF) to analyse PPP governance. The governance evaluation applied in the study is unique as – unlike conventional (neo-classical) analyses – it is based on the perspectives of a variety of affected stakeholders. The argument of the study was based on the concern of who makes strategic decisions in PPP projects and the basis upon which they are made. The strategic decisions, which are generally decided by a few elites, potentially lead to a state of 'strategic failure', where the wider public interests of those who are affected by strategic decisions tend to be ignored. The study challenges the perception that for the governance of the electricity sector being reformed via PPPs to be in the public interest, the governance structures should be inclusive to the extent that they incorporate the wishes and aims of people into the strategic decision-making process, and allow diverse stakeholders to have voice to influence decision makers. The study tried to extend the application of the basic ideas of SCF and aimed to focus on PPP projects' performance evaluation, analysis of strategic decision-making structures of PPP and development processes, and widening participation in PPP governance. This was done in relation to the BOO type of PPP adopted in the context of the KRI's electricity sector, by using original interviews and focus group data.

Firstly, the study evaluated the performance of BOO projects and the electricity sector as a whole. In evaluating the performance of PPPs, a wider stakeholder aims and objectives view was relied on to determine how the electricity sector being reformed, and the specific BOO projects, have performed, and hence to what extent outcomes are in the public interest. This approach to evaluating performance was informed by the SCF. The traditional approaches of PPP performance analysis have represented only particular performance objectives. Therefore, the PPP performance evaluation framework of this study provided a complement to the traditional PPP performance evaluation approaches. It developed a broader perspective that explores wider stakeholder perceptions about BOO impacts on the development outcomes. The concept of 'practice of contracting' has also been considered along the SCF to assess the dynamic efficiency of BOO projects.

Secondly, the study examined the structure of governance of BOO projects in the electricity generation sector, and the development of the wider electricity sector as a whole. The study identified the governance issues and their implications on wider stakeholder interests. The study utilised the SCF focus on strategic decision-making structure, and integrated other

traditional governance elements to define wider issues in the governance structures, such as transparency and accountability, public trust, interaction and relationships development, and conformity to partnership purpose. This was done in order to explore the underlying reasons that cause governance issues.

Thirdly, in addressing widening participation in PPP governance, with the SCF, the concept of 'Trinity of Voice' was also integrated to explore inclusive governance structures. The identified dimensions/constructs for analysing the governance structures were based on a democratic governance perspective, and suggested how democratisation of the governance process could be attained. Chapter Five, Chapter Six, and Seven reported the findings of these there research objectives.

Chapter Five reported the analysis of the post-evaluation of performance of the BOO projects and the electricity sector as a whole. The analysis showed a number of factors that are responsible for successfully overcoming some of the sector's efficiency challenges after the KRI promoted the PPP policy implementation in 2006. From the perspective of the parties directly involved in the BOO projects, the major impetus for the KRI's implementation of the BOO model pointed to the necessity of meeting the challenges of the huge investment required for the development of the electricity sector, expansion of the electricity generation capacity, and better operation and management of the sector. These objectives of the government have been met because of two main perceived advantages of private sector participation. Firstly, the superior financial and management capability of the private sector, which could benefit the electricity generation sector and the investment of approximately US$ 4.7b in building a number of power plants with quick completion of these projects. Secondly, the private sector's focus on better project management, especially at the construction phase through the selection of better technologies, controlling the budget and scope of projects could bring some other value of Independent Power Producers (IPPs) participation in delivering quick completion of the power plants.

The BOO projects' performance analysis verified the importance of meeting efficiency objectives in terms of satisfying government requirements of quick completion of power plants, delivery of the projects, and better operation and management of the power plants. However, the emphasis of the directly involved BOO actors on achieving these performance objectives has shown 'result-orientated thinking' (Takim and Akintoye,

2002). The current outcomes of projects showed some justifications that suggest advantages of favouring BOO over the traditional procurement methods. While the high governmental officials at the KRI government have narrowly considered these performance objectives.

The narrow strategic perspective in setting the performance objectives of BOO projects has shown that many other operational efficiency performance objectives are yet to be incorporated. Based on the perspective of wider stakeholders of BOO projects, the electricity sector and the BOO projects have not performed successfully in terms of lowering service provision costs, providing affordable and reliable electricity, quality contractual process, appropriate risk transfer and management of the risks involved, utilisation of technological advancements and bringing in innovation to the sector, meeting the wider public development benefits of better electricity service being provided to the affected areas, more job opportunities and fewer negative environmental impacts.

The findings from the performance evaluation showed that a huge proportion of the total cost of generated capacity is undertaken by the state, due to a high-priced Power Purchase Agreement (PPA), excessive costs on the local government authorities for paying fuel supply costs during the long-term contractual BOO agreements, and substantial subsidy by the government due to a low retail tariff structure. Reasons for the high service costs incurred by the government include the fact that the rationale for promoting more BOO projects has not been accompanied by feasibility studies, and that the government has properly estimated the cost of the service to be purchased from the IPPs. In addition, the government did not create a competitive market and open the electricity sector for competitive price of electricity to be purchased from the IPPs. The analysis also showed that the major objective of improvement in electricity hours to be supplied to the public was not met. The implication of the electricity supply shortage is reflected in costs on consumers, who pay two bills for alternative electricity provided from the local generators with fewer equivalent capacity units. Consumers, both residential and industrial, have no other choice to access a reliable service, as the MOE is the only supplier in the electricity supply market.

The adoption of PPP projects for the sector has not been based upon wider stakeholder objectives and aims in order to result in improved operational efficiency. The KRI has

committed more resources to the BOO projects but in return obtained a less efficient service. The commitment of the government to pay the same fixed capacity charge – specified at US$ 3.2 cent per kilowatt/hour – to the availability rate payments for undelivered service and excessive fuel provision costs puts major pressure on public budget expenditure for electricity provision service from the private sector. Inefficient service costs and inappropriate risk allocation are major hurdles to BOO implementation and ensuring effective and efficient development of the electricity sector and other strategic sectors of the economy (Cost Analysis Report, MOE, 2010). Overall, the results show that in the process it is the interest of the private sector that is secured, rather than the wider public interest.

The concept of 'practice of contracting', which was integrated into the evaluation, verified that operational inefficiency was caused by poor quality of BOO contractual exchange, leaving more serious future risks for the government. The ex-post contracting process influenced by political intervention. As there is no completive forces exist in the energy market, the opportunistic behaviour of the BOO actors was evident. Such opportunistic behaviour has caused the practice of contracting to become distrusted by the wider public. This is also reflected in allocating risks in BOO contracts. The major market risks fall on the government, which has led to the public sector incurring extra service provision costs in BOO projects, showing that private interest is being pursued. The factor which contributed to poor contracting practice was limited relations with the stakeholders (e.g. experts in the field). The impact of poorly monitoring and enforcing the BOO contracts by the government was reflected in the poor commitment of the key BOO parties towards the projects and stakeholders.

The broader stakeholder perspective evaluation of performance indicates that critical stakeholder objectives should be incorporated in order to bring more efficiency to the electricity sector. The reform should not only include PPP adoption for financial and management objectives, but also incorporate wider stakeholders' objectives of more employment opportunities, local development, environmental impact consideration, and more service access compensation to affected stakeholders (residents who live near power plants). To make BOO implementation successful, the analysis also confirms a critical factor for success, namely that more opportunities should be provided for local employment, job security, scholarships and flexibility of offering placements for the

affected areas. This study confirms that these objectives should be tied to the efforts to evaluate PPP performance, and whether the outcomes of the projects are in the public interest. These objectives emphasise aspects that are beyond the scope of the interests of the partners directly involved in PPP projects.

In Chapter Six, the governance structures of BOO projects and the electricity sector of the KRI as a whole was analysed. When the KRI government promoted private sector involvement in the electricity sector the alignment of diverse interests of stakeholders affected by implementation of the strategic and development policy decisions was not considered. The analysis showed that the decision-making power is concentrated in the hands of high government authorities, namely, the Council of Ministers (COM). At an early phase of PPP policy development and implementation, various stakeholders were excluded. The current governance structure of the BOO projects and the electricity sector implied that, after the BOO implementation, the issue of excluding the wider stakeholders in the decisions about strategic issues such as PPP type selection, setting BOO contract clauses and assigning risks, project scope and appraisal, location of the power plants is still present.

Stakeholder consultations in strategic decisions have not been considered in the governance structure for the electricity sector and BOO projects. Therefore, to incorporate the wishes and interests of all stakeholders, the BOO governance structure requires a broader inclusion of stakeholders from the public sector, such as departments at the MOE and related ministries; the interested groups such as Chamber of Commerce and Industry, Labour Unions and Provincial Councils; more interested private companies; the general public and residents of the affected areas. The analysis also verified that dominance of high governmental officials and retention of power over the BOO implementation process has implications for competition in the market and performance of the projects.

The governance analysis also provided insights about the implications of strategic decision-making power on the formation of the structure to deliver the BOO projects and involvement of stakeholders within the governance process. The structure option adopted to carry out the operation of BOO projects depended on utilising the existing departments and employees at the MOE. The result of this structure was insufficient interactions between different governmental departments, the private sector, labour unions, Chamber

of Commerce and Industry, affected stakeholders, Environmental Board, provincial councils, and consumers. Even though the investigation found that there was a token response to satisfy the requirements of the governance of operational BOO projects, such as assigning reporting and supervision committees by involving a few governmental entities from the MOE departments, Ministry of Trade and Industry (MOTI) and Investment Board, a weak relationship among the wider stakeholders was developed. The KRI case shows that such evolved governance structures raise issues of accountability, clear responsibilities, responsiveness and effective communication in the governance of the projects and proper management of the whole process. The analysis also confirms that, to some extent, the developed relationships in the broader structure of strategic decision making enhanced mutual trust between the directly involved BOO actors, while the wider perspective of stakeholders indicated that public trust in the BOO governance is more important than the internal trust between the key involved parties from the public and the private sectors. The importance of the public trust dimension of governance and trusting key decision makers emerged from the way risks were perceived and the degree of power held by the involved actors.

The analysis also verified that the perception of democratic concerns relating to accountability and transparency is strongly present in the KRI experience of BOO implementation. The absence of a suitable regulatory and policy framework, lack of monitoring procedures and oversight, and poor consideration in relation to disclosure of information and access to information are aspects that undermined accountability and transparency in the governance process after BOO adoption. In addition, commitment to the partnership vision was another concern that needs much attention by the BOO actors to make the partnership projects effective. for the democratisation of the governance and strategic decision-making process, the democratic concerns need to be focused on

Chapter Seven explored the extent to which the structure of the decision making related to the PPP policy development and implementation allow the interested actors to participate, the analysis showed that there is a very low level of participation offered for only few stakeholders from the public sector. The wider stakeholder groups have not had opportunities to get involved. The analysis confirmed that traditional public participation mechanisms can lead to meaningful stakeholder participation in governance. However, the study verified that for stakeholder engagement to be influential and ‘voice’ to be exercised

in the process of making strategic choices and governance process, stakeholders need to be provided with the elements of access, standing, and influence. These elements are required for successful engagement of stakeholders and inclusive governance structures. During the democratisation of the governance process, there are other aspects that also need to be considered prior to designing a stakeholder engagement process, namely eliminating political intervention and encouraging responsiveness of the stakeholders.

The current analysis of the governance of BOO and the electricity sector of the KRI contribute to the literature in four ways. First, conducting a PPP analysis from the context of a developing economy offers a different perspective on PPP experiences, as existing studies focus largely on developed countries. Second, the analysis in this study is valuable as it extends the current debates that emphasise the need for more studies to address the extent to which PPPs might serve the wider public interest (e.g. Grimsey and Lewis, 2004; Hodge and Greve, 2010; Wang, 2009). It addressed the public interest in PPPs from a broader governance perspective that considers wider stakeholders of PPP projects. The study goes beyond these typical concerns highlighted in the PPP literature that explained by the neo-classical view that only focuses on production costs (Reeves, 2008). This study believed that the PPP impacts on the public interest is better addressed through a governance approach. Therefore, it adds to the body of PPP literature that points to governance of PPPs as a key concern for the success of PPPs to achieve outcomes in the public interest (e.g. Landow and Ebdon, 2012; Patel and Robinson, 2010; Hodge and Greve, 2010; Skelcher, 2010). Thirdly, the study developed two evaluation frameworks for the performance and governance structures analysis. The performance evaluation highlighted that the reform of the electricity sector has not included the democratically chosen objectives for an efficient electricity sector. According to the SCF, ignoring the aims and objectives of the wider stakeholders in undertaking the reform process of the important strategic sector of electricity has led to a state of ‘strategic failure’, a similar conclusion to that derived by Branston et al. (2006b). The findings assert that the reform of the sector should be based on democratically chosen objectives and broadening the strategic decision making (Bailey et al., 2006; Bailey, 2003), and the performance of the sector being reformed via PPP should be assessed in relation to these objectives. This study also found that the performance of BOO projects and the electricity sector as a whole has been affected by several issues relating to governance. These issues have emerged from the way the governance structures are formed for PPP policy development and strategic

decision making, leading to the analysis of the governance structure of BOO projects and the electricity sector as a whole. The study offers a comprehensive analytical framework for PPP governance structures and participation based on the SCF ideas and thus addressing the public interest and a broader perspective in evaluating PPP success. This view for analysing PPP governance is different to other perspectives in the PPP literature as it draws upon the changes in the strategic decision-making process in the sector being reformed via PPP and specifically on who makes the decisions and on the basis upon which these decisions are made (Branston et al., 2006b). In addition to these, the findings about widening participation bridge the knowledge of necessity for engaging stakeholders of PPP projects with the need of finding ways for the effective engagement of stakeholders to have 'voice' in the strategic decision making and development process.

8.6 Limitation of Theory

This study's contribution is about a governance approach to address the public interest that applies to the analysis. In light of the SCF, the study suggests that the diffused structure of governance to allow for diverse interests to be incorporated in PPPs can serve the public interest. However, in utilising the basic ideas of the SCF, it can be noted that the theory has not considered the impact on dynamic efficiency. Therefore, within the SCF, the concept of 'practice of contracting' should be included in the evaluation of performance and the impacts on efficiency. This study verified that operational inefficiency was caused by poor quality of BOO contractual exchange, leaving more serious future risks for the government.

The SCF also has not suggested the effective design that stakeholders could be engaged in the governance process. Therefore, this study sees that the Trinity of Voice concept by Senecah (2004) should be integrated into the SCF in order to provide the analytical framework for examining and exploring the process and nature of stakeholders' participation in the governance of PPPs. The study specifically adopts the SCF through the novel use of the Senecah's (2004) 'Trinity of Voice' concept precisely because this allows it to better gauge the efficacy of more democratic governance mechanisms. This concept suggests that a meaningful stakeholders' engagement and participation requires the ability of stakeholders to obtain voice and legitimacy, and opportunities to influence powerful decision makers (Walker et al., 2006).

8.7 Limitation of the Study

Even though this study contributes to the critical area of investigation in the PPP literature, the analysis of the governance of PPPs and the exploration of a democratic governance has relied on the single case study of the electricity sector of the KRI, a developing economy. The broader stakeholder perspective provided deep insights into how PPP projects, in relation to the type of BOO adopted, have been governed and to what extent the outcomes are in the public interest. It also explored the study's propositions in regard to the governance structures and the performance of PPPs. However, a single case study restricts the present research's generalisability. The governance analysis also focused only on the BOO type of PPPs. The analysis of other forms of PPP and in other strategic economic sectors might help identify more underlying reasons leading to governance issues and the implications of PPP projects on the wider stakeholder interests.

Furthermore, the study mainly focused on the delivery phases of the BOO projects. Focusing on other PPP forms and specific phases of projects might need to encompass other democratic concerns related to governance structures and performance objectives in the evaluation. The study has analysed PPP governance at the strategic decision-making level and PPP as a strategic choice for reform. The study has not evaluated the long-term contractual relations in PPPs neither did analyse more broadly the internal governance structures of PPP projects precisely to be able to empirically investigate factors relating to success in contract management and relations at the project level.

8.8 Future Study Direction

The study depended on a qualitative investigation of democratisation of the governance process and inclusive governance structures of BOO projects and the KRI's electricity sector as a whole by drawing upon the SCF. The present study also explored stakeholder participation in strategic decision making and development processes. However, a future research project might focus on the broader stakeholder perspective provided by extending the SCF theoretical perspective to analyse the governance of PPPs and rely on a number of cases from other strategic sectors and developing economies contexts. The identified stakeholder groups of the current study might also be extended to include more interested stakeholder groups such as consumer protection groups and non-governmental

organisations that work for protecting environment, which did not exist in the context of the current study. By replicating the study's propositions, PPP cases in other strategic sectors may reveal similar and different findings. Future studies, furthermore, might adopt a quantitative research approach that makes the validation of findings easier and confirms the suitability of stakeholder engagement mechanisms and the effective ways of the democratisation of governance process. The researcher hopes that by replicating the SCF theoretical perspective a more robust theoretical and analytical approach to PPP governance can be suggested, as the most obvious gap in the PPP literature that still needs attention is poor theoretical and analytical approach to analyses of the PPP success (Hodge and Greve, 2017).

Future studies might also focus on internal governance structures of PPPs or a more micro PPP governance analysis. The aspects of contract management, complexity and relationships may be investigated and the question of how they influence the outcomes and performance of PPP projects may be addressed. These aspects might provide more insights and expectations from the wider stakeholder perspective and help identify the impacts of these aspects on PPP outcomes in practice (Hodge, Greve and Biygautane, 2018).

8.9 Policy Recommendations

Since PPP projects have been present and operate for long contractual periods, several necessary actions should be undertaken by policy makers in regard to PPP policy. The results herein suggest that the sector reform must create appropriate regulations for investment and private sector participation, and for building closer relations with all interested stakeholders including industry experts and environmental groups. The way to overcome the governance issues and improve performance is by the democratisation of governance, during which great importance should be placed on the wider stakeholders' objectives inclusion in the strategic decision-making process and the engagement of wider stakeholders. The focus should be on the following key actions:

- Supporting and working on a well-developed regulatory PPP policy framework for the electricity sector.

- The government's choice of any governance structure for the sector as well as future PPP projects need to incorporate expertise and knowledge regarding the risks and their management in the PPP contracts.
- Adopting an inclusive governance structure that can allow for engaging the wider stakeholders and incorporating their views. This will lead to developing capabilities for improving and managing the sector.
- Creation of a separate regulator in the electricity sector. The KRI government can authorise a unit or create a public interest supervisory board, which can act as the most efficient and effective structure to deliver the PPP projects and to steer the performance and governance of projects. In addition, this board or unit can ensure that inclusion of the project stakeholders in the strategic decision making.
- Working on addressing transparency, accountability and public trust concerns as some important traits of governance. The suggested PPP unit can work on these concerns and establish mechanisms that allow public oversight and hold the government and private sector to account. Otherwise, implications of strategic decisions of PPPs for the development of the electricity sector on the public interest will be evident.
- The democratisation of governance might not be attained right away. The change in governance needs to accompany the revision of the structure of strategic decision making, regulating arrangements, the introduction of competition in the market and broadening participation of the diverse stakeholders of PPP projects.

These actions can be undertaken as a first step towards the democratisation of strategic decision making. The next step can direct the efforts to provide structures/mechanisms that allow the inclusion of wider stakeholders and realise their desired interests in the development of the electricity sector.

Appendix A

A Sample of Interview Questions

1- What are, in your opinion, the main differences after the participation of the private companies in the electricity sector? What have been the results of private sector participation?

- Has their participation brought the required investment to develop and manage power projects?
- Has their participation brought the know-how and expertise required to the sector?
- Have crucial risks been transferred to the private partner?
- Has the quality of the service improved?
- Have your expectations from infrastructure projects, such as electricity access to all, including the affected stakeholders, local development, and the environment been met?

Performance

2- How do you assess the performance of these BOO projects in the electricity sector?

Cost

3- To what extent do you think the cost of electricity service provision has been changed?

- Do you think the project contract within its total investment commitment has been delivered? If not, what do you think could have contributed to this? [only the public and the private sector interviewees]
- Has any change occurred in the units to be installed (capacity in Megawatts)? Has it decreased during this phase? Has this led to a change in cost? (only the public and the private sector interviewees)
- Do you think the payment by the public sector of the capacity (electricity generation) has been reasonably set?
- Have, for example, fuel supply cost or expense payments led to extra operating and running costs being incurred? [operational projects only]
- To cover the service provision costs, has there been any change in the electricity selling tariff structure?

Timely completion and operation solutions

4- Was the project time scale clearly defined?

- Do you perceive that there was (or will be) any delay in the delivery of the project is the specified time? [for the projects at the construction phase]
- What did the government do to minimise any potential delays?

- Is there any method by which EPC contractors could speed-up the construction process? [for the projects at the construction phase]
- Has there been any situation experienced that caused delay of operation of the station, such as fuel quality or supplying of fuel by the government? [for operational projects]

Quality service provision

5- To what extent do you think the reliability of electricity has improved?
   - Could the required specification (public client need) be integrated into the construction process?
   - Have any changes been made in the project scope and specification (any addition of capacity)? [for the public and private sector interviewees]
   - Do the power plants supply the total capacity that has been installed?
   - Do you think this capacity of generation meets the electricity demand?

Risk allocation

6- To what extent do you think risks are effectively allocated to the involved project parties during the construction and operation phases?

Bringing in innovative solutions

7- Do you think the private sector participation has brought any change to the process of electricity provision and/or improvement in the electricity sector?
   - Has the IPP developed any innovative solutions (use of advanced materials, modern construction methods, designs) at the construction site?
   - Could new technology be accessed?
   - What was new in the power plants after their completion?

<u>Governance Structure and Participation in the Strategic Decision-making Process</u>

8- What should have been done to make the partnership projects or governing the sector through BOO projects in the electricity sector successful?

Decision making structure and participation

9- To what extent do you think it is important for you to have been consulted about the strategic decision-making process in the project?

10- Have you ever been given an opportunity by any of the directly involved actors in the project (IPPs or public sector departments) to participate in the project's strategic decision-making process?

11- Have you had any opportunity to express your interest in the projects at events (e.g. meetings, seminars, etc.) during any of the developing phases of the PPP implementation?

12- In your opinion, was/will your participation in the strategic decisions of the project (be) influential?

Interaction in the governance structure

13- To what extent do you think the directly involved parties in the projects have developed relationships with you?

Accountability and transparency

14- To what extent do you think the PPP involved parties have provided you with information about strategic decisions in PPP policy and implementation?

15- Do you think sufficient information about contracts and project performance has been provided?

Conformity to the partnership vision

16- To what extent do you think you and other the stakeholders of the project have been working towards the same vision?

Public trust in governance

17- How has public trust been affected through the governance of the projects?

- In general, do you think the parties involved in the project have made competent decisions?
- Do you think the parties have been open in their communication about outcomes and processes with you?
- Do you think the private project developers and government are concerned about the public interest?
- Do you think the involved parties have been consistent in their actions?

<u>Perception of strategic failure</u>

18- Overall, do you think the interests of all (stakeholders) have been represented in the strategic decision-making and development process? Why do you take this view?

Appendix B

A Sample of Focus Group Questions

Q1- In your opinion, if we consider private sector participation in the electricity sector, what improvements can be observed? What differences can be noted after the participation of the private sector?

Q2- How do you perceive the performance of these strategic projects between the public and the private sectors in terms of:

- Reliability of the electricity supply
- A response to electricity demand
- Local employment and development
- Job opportunities
- Service coverage to the affected areas
- Environmental impact considerations
- Fuel supply costs and involved risks

Q3- What do you think should have been done to improve the contracts between the public and private sectors, thereby ensuring that the projects were successful and were being operated in the wider public interest?

Q4- To what extent do you think it is important for you to have been consulted about the strategic decision-making processes regarding the projects?

Q5- Have you ever been given an opportunity by any of the directly involved actors in the project (the private companies or the government) to participate in the project's strategic decision-making?

Q6- Were you given any opportunities to express your interest in the projects at events during any of the phases?

Q7- In your opinion, has your participation in the process and the strategic decision making regarding these projects been influential or how it will be influential?

Q8- Have any of the directly involved parties in projects approached or contacted you in regard to any issue related to the projects?

Q9- To what extent do you think the PPP involved parties have provided you with information about the strategic decisions in relation to these projects?

Q10- Do you think the private sector participation has made everyone cooperate, working towards the same vision in terms of developing the electricity sector?

Q11- To what extent have you trust in the governance of these projects? Which party [the government or the private companies] do you trust more?

Q12- Overall, do you think the interests of all have been represented in the strategic decisions regarding these projects and the development process? Why do you take this position?

Appendix C

A Sample of Interview Transcript

Stakeholder Group: Private Sector
Interviewee: Senior Manager
Date: 9th Dec 2015
Duration: 13:00- 14:00
Place: Erbil - Kurdistan Region of Iraq

In: Interviewer I: Interviewee

In: I want to start with this question, in your opinion, after the participation of the private companies in the power sector of Iraqi Kurdistan region what differences can be seen, or the participation of the private companies how can help the government or the electricity sector?

I: I think participation of the private sector brings about a more efficient type of power, one that is very cost driven and attention to accountabilities that people like of myself are being held directly accountable for. So, I think direct accountability for performances is a key contributor.

In: What about the expertise they have brought to the sector (know-how expertise), do you think from that in this regard they will help the electricity sector or not?

I: Most definitely! We have got quite a few talented people - knowledgeable people in the country, who maybe they lack some of the independent power operating philosophies [through which] they would leverage some of the western expertise like that of myself and others to bring in established best practices - industry's best practices, industry's standards best practices, So, I think that is the benefit to the region.

In: For this project [A], which is at the operational phase, how would you describe the operational phase now, is everything going perfectly?

I: I mean obviously nothing is running perfectly you know. There is no perfect plant. We have our challenges. There is a very steep learning curve especially with the added combined cycle, which is relatively very new technology for this region. So, we have had

to had a leverage utilised, you know, some expats from India for operations training as well as some expertise for my field as well. I would just say that the challenge is about learning new technology and becoming more efficient.

In: Do you think there have been any problems that have caused delays [in operation] in terms of the fuel supplied to the plant?

I: Yes, I mean the fuel supply has been an issue… fuel supply can be an issue. There are some limitations there as well.

In: Limitations in terms of what?

I: Quantity alright! As new plants are coming on, as like Khormala, right? It is an additional expansion to Sulaimaniyah right! This has definitely put stress on the gas supply. So, not only is it a scenario where further investment may have to be made as well, for you cannot just grow one sector. You have got the power sector distribution and gas, which all have to be realised with a bigger vision you know.

In: Do you think such kinds of limitations will lead to incurring of extra operating or running costs?

I: Yes, most definitely. From our standpoint, a direct impact would be that we cannot utilise all our boilers, right? So, that means we have had one boiler off and when we have our boilers off to preserve that we have to mix special preservation measures, which is an additional cost to us as well. We have got to fill up everything with nitrogen and keep nitrogen bank and everything. So, that adds to operational cost, right?

In: Do you think this operational cost will lead to renegotiating the power agreement with the government or is there anything that happened in the past that led to renegotiation of this agreement because of the higher cost for you?

I: I do not think we have done that personally never. I do not think these costs were realised in the conception phase you know and once again it is just a lack of understanding of the full process here, right? Yes, in short, it will lead to additional cost.

In: I would like to ask another thing about the consultancy fees of this project. At this stage of the project, have you been consulting with other parties from the government side or [engaging in any] external consultancy?

I: Yes, from our side we have utilised engineering consultants, such as from [Company A] and now we have our consultant from the UK, called [Company B]. It is their responsibility to highlight these types of issues.

In: Do you think at this stage the consultancy fees are lower, is it not like the construction phase? Is there a change now from the construction to operational?

I: I do not think this would be as much as for the initial project conception and review. The fee for operational phase will be significantly lower than for a new build or construction site.

In: In the case that you aced any problem with fuel quality or it not being supplied in time, who bears the risk of this? I mean is it the government or will it be on your company?

I: In our circumstance, the government supplies the fuel. So, we mitigated risk of fuel supply by putting that on the government to give us fuel - so fuel shortage is not our responsibility.

In: Even if the quality is not good?

I: Well, the quality is another issue. Quality is an area where we assume a lot of the risks. There are specifications and we have very little control over those, right! We have to do and place that is to put additional measures field, turning sketch, for instance, consumption of consumable. Obviously, those are higher right to manage that substandard fuel sub-speed so which drives a proportional cost again. So, there is a bit of….and a lot of that… a lot of those issues, we really cannot do too much about, so there is quite a bit of risk there operationally.

In: I would like to ask another thing about the capacity generated electricity. There is a demand from the government for this capacity, do you think this demand has been properly assumed?

I: I think for this region, yes, just from the mere fact that the demand has risen so greatly so rapidly. Now, I think it is once again… I really do not know if they really understood how fast Kurdistan was gonna grow and it grew pretty quick in a short time. So, catching up with the demand is getting very challenging.

In: Typically for this project, do you think they could demand more?

I: Yes…which would drive us to obviously becoming more efficient and trying to maximise the complete potential for the project, yes.

In: In terms of innovation, can I ask regarding this project, do you think you could access the latest technology?

I: Yes

In: Did you have the resources to bring in [new] technology?

I: Yes, yes, we utilised General Electric obviously the original equipment manufacturer. We continuously gone to them for improvements and enhancements, so to be meet any adjustments in demand - how we can get more out of what we have got. We have gone to them and they have said 'Well, you can add evaporative cooling, water injection, and this' and this makes things more efficient - upgrades the modifications.

In: Do you think that this like something new in the process of generating electricity or it is just the standard, internationally?

I: It is relatively standard internationally. Everybody is gonna strive to be more efficient, getting more for less right. So, it is a continuous battle obviously.

In: In terms of efficiency [of the plant], do you see there has been an improvement from the project?

I: Yes, for sure

In: In terms of the environment, do you think something new has been added?

I: Yes, obviously just the installation of the combined cycle in itself it is environmentally friendly, right…because we are generating 500 megawatts with waste heat. So, there are no carbon emissions for that 500 megawatts, as opposed to if you put in gas turbines, 500mw gas turbines that would also increase carbon emissions.

In: In terms of your participation in the decision-making process in the project, have you ever been consulted about any decision in regard to it?
I: Yes, I have.

In: To what extent you can say you have been involved? Is it just that you have been given information or you have been listened too?

I: Yes, my involvement was specifically during the commissioning and turnover phase to manage and to ensure that we had received what we bought. So, I had direct responsibility for interfacing from the contractor to the turning over to the customer as a client. So, that was one of the key parts of mine.

In: Have you been given the opportunity to express your views or interest?

I: Yes, and highlighting issues ensured they were rectified to the best interest of [his company name].

In: Did you find you could influence their decisions or not?

I: Influence our decisions? Oh yes, I would either accept the plant or they would have to change it. So, I could influence it as allowed through the contract. I could execute the contract just to ensure that the contract was being adding to and we received what we

bought. Yes, I could influence them just in that respect just to make sure that everything was correct. So, speaking and not accepting any substandard equipment that are practises.

In: At the stage when you had to finish the commissioning [phase] and get the project in your hands, was the only [company name] involved or did the government also send people?

I: Now I do not think… the government interfaces with us when it comes to the grid ok, exporting the power, making sure they were informed when we were able to equate power coordination with the government. In that respect, that would be the interface with the government.

In: You could participate in decisions when you were at that point?

I: Not directly… in directly.

In: Through your company?

I: Yes

In: Do you get information? I mean about the project performance, audit reports, performance reports? Or in general, is there a flow of information to you?

I: Yes

In: So, how would you describe the quality of this information you get?

I: In regard to the performance of the plant?

In: Yes

I: Yes, well I myself I get daily reports, weekly reports and monthly reports, which I review and I solicit the data, so to speak, so it all comes to me and I review it and submit it to the general manager.

In: What about strategic decisions to be made, do you also have information about these or not?

I: Yes, they come to me. You know in regard to the contracts - maintenance contracts, dealing with vendors, and subcontractors. Yes, I am very much engaged with most of those decisions.

In: Is this information updated regularly?
I: Yes, yes

In: Is it useful for you to give your view?

I: Yes, my all…..

In: Accurate as well?

I: Yes

In: Sufficient?

I: Yes

In: In terms of trust, how is trust maintained between the main parties in this project?

I: Well and I think that is a key to being successful here, right, is having trust and relationships, right! That in itself is maintained by the likes of [the company owner's name] and [plant manager's name]. Mr [plant manager's name], he has got very good relationships with the dispatch control and so, they have got to have to communicate effectively and honestly. I mean, if we have a problem, we have got to say to the grid guys and say: 'hey, listen I have got a problem …'

In: The grid, you mean from the government side?

I: Yes, from the dispatch. and he [the plant manager] has got to be able to say: 'listen I have got a problem with my plant. I have got to shut this plant down, you gonna be losing x megawatts during this period, so we can rectify this problem'. And timing and communications are very key with that and you know, at that time, maybe the dispatch control will talk to [plant manager's name] and say: 'hey, can you push us out may be at 2 o'clock in the morning, when the demand gets lower, when there is less impact on the people and then, we can work'. In those type of relationships, this is key.

In: Do you think the main parties, I mean, can make competent decisions?
I: Yes

In: Both?

I: Both sides, yes.

In: And there is an open communication as you said?

I: Yes, I think so.

In: About processes and outcomes?

I: Yes, and I think that is key. And I think we are fortunate in that respect, which I think this type of environment here, I think it is one of the better places I have ever seen. Like I said, I am from [country name], where things are very contract oriented, everyone has got be a lawyer when you are talking. Here, you can say, 'hey'. I have seen a relationship as I said like with [the plant manager's name] and dispatch control, where they listen when we have got a problem and say, 'here we gonna have to' …what is best for everyone.

In: So, they are not opportunistic?

I: Yes, exactly right! So, I think, in general and I think to even goes to [the company owner's name] as well that he is very flexible… and it is good.

In: Do you think they are also consistent in their actions? I mean for both sides? May be from your side you would say you do what you said. What about the government side, when you have a problem in ….

I: I think. So, I think relatively yes. I think yes… consistent. We are consistent, but sometimes not being inconsistent. But there was… [laughing] it generally, I would have to say, yes, consistent.

In: Do you think you and other stakeholders of the project share the same ambitions and vision?

I: Yes, I think that is so. I think we do… like I say we do communicate these values and goals to everyone, you can even see them posted on the street. So, yes, I think so and I think regular dialogues with the people in the ministry and dispatch control just reinforce these.

In: There is a shared strategy among all?

I: Yes

In: Do you think there is a trusting climate as well?

I: Yes, I do. Like I say, this is a unique environment and I think, you know, if one thing that I get to scrutinise, for if I tell my senior management that I am gonna have to plant backup by excel in a time and let us say I have a problem like this is where? Then senior management would talk to other senior management and say let us have problem that slips. That is… it is a…. it is not taking very well you know… I mean, now I have learned to take that, be a little bit more flexible, build a little bit more baffle there because I know there is a lot of people that making a lot of decisions based on the numbers I gave them. So, I have got to ensure that everything is accurate as I work.

In: So, you think there is collaboration also among all?

I: Yes

In: You personally do you regularly communicate with the other stakeholders?

I: Other stakeholders, in regards…?

In: I mean, from your company and also from the government side, if necessary?

I: I do not communicate with the government side as much, right, for the mere reason I think, because of the language barriers there more than anything, but I know that, in general, our company has good dialogue with them, if not daily.

In: Do you receive any appropriate advice from others?
I: For my staff?

In: Yes, for yourself? Do you feel comfortable receiving advice?

I: Yes sure, no problem. I think nobody knows everything, so it is important that you are tapping into all your resources.

In: If I could ask another question, do you think in the strategic decision-making process for this project, that the interest of all have been considered? I mean for the private company, for the government., for the end users and for other stakeholders?

I: Yes, I think in general, you know, everybody is trying to do what is good for the country and that is sort of why it is unique [the company name]. It is a unique company, because [the company owner's name] is very patriotic in this sense, you know what I mean! Especially during special times of the year, seasons, such as during Ramadan, he makes special efforts to limit any reduction in power or outage work, so he is very aware of those kinds of things.
In: What about yourself your interest in this project? Do you think your interest has also been served or not?

I: Yes, I believe so… I mean my…. in regard to me personally, my work is I want it to be I want to ensure the project is efficient and is the best it can be.

In: What about the affected stakeholders, do you think they are also considered? I mean people living in that area maybe their land has been used or people living in the villages living around maybe they have asked for job in this project? Do you think their interests are also taken into account? You said for end-users, you said like, sometimes people are considered like during different seasons, so what about other people affected by this project?

I: Now, I think this company does do a lot of a…. They take an additional cost for, let us say, community development. We utilised you know local workers from the village… those types of things you know. So, yes, I think…trying to hire more people from where we are those…. are considered.

In: Would you like to add anything else?
I: No, I think it is interesting research. So, I appreciate you coming to see me by any means. If there is anything else, you have my email address and I will be more than happy to answer any questions you have.

In: Thank you very much.

I: You welcome.

Appendix D

A Sample of Focus Group Transcript

Focus group: FG1

Number of Participants: 8 residential consumers

Place: Sulaimaniyah

Date: 16th September 2016

Time: 20:00-21:30

In: Interviewer P: Participant

In: If we look at that the electricity sector and the generation of electricity, we see that this service is provided by private companies now, so I start with this question: what differences you can see? How they could improve the electricity sector? Or, has this strategic decision by the government benefited the sector or not in terms of the capacity of electricity needed, quick completion of the power plants and effective response to high electricity demand?

P1: The electricity was not good…. it was not… and now to say after…

In: But after the involvement of these private companies and building these big power plants and let us say, those with 1500 megawatts and 1000 megawatts, have they helped the sector or not?

P1: They have added a few [megawatts] in response to the demand for electricity, but it [the private sector's effort] was not to the extent that was supposed to be. What is the reason [to say this]? The reason is that in the middle of summer you need electricity, but you see electricity cut in the middle of the day between 11 to 2 or 3 pm. And then it comes to the generators; the generators are not capable. The generators are owned by individuals not the companies. The private companies are those that transmit the generated electricity to the grid. When the national electricity is cut and the electricity [from the generators] is less, you have to switch from the air conditioner to a cooler. There are households that cannot afford more amperes and thus, they do not even turn on the cooler. They are obliged to turn on a fan. Hence, they [the private companies] have not provided electricity to the extent that it was needed.

In: So, you say that the demand of electricity from the Ministry of Electricity has not been responded to or the demand for electricity by the public has not been effectively responded to?

P1: No.

In: Other views?

P2: Do you know how is this? What it is related to? It is related to the demand. The demand changes from one season to another. Otherwise, if you see the data from the Ministry of Electricity on electricity generation, you see that the generation of electricity has not decreased since 1991. It has increased continuously, but in return the demand has increased. For example, economic revitalisation and building factories, all these have had a role in this. Expansion of the cities, for example, just see around how many farmhouses have been built, all of these how much electricity do they need? Or the factories, for example, there are some factories that take the biggest share [of the demand], those that manufacture steel, melting steel and cement. These factories from the industrial sectors, as you see in Bazyan districts there are many, they consume electricity a lot and they agreed with the government on a special selling price. The government sells the electricity to them at the price that is lower than the commercial price [selling tariff]. This has impacted on those that are households that use electricity for themselves. You notice that the electricity that is provided to the households, if it is at normal times or on occasions like feast days, the government supplies more electricity [in hours] to the households at these times, because the factories are closed. You can benefit from this. You see that special occasions and feasts you get more electricity. It is not related to the increase in the generation by the government or anything like that, but it is related to this.

In: But the government says they need this generation, which is why it has involved the private sector. One of the imputes is that there was a huge need for electricity generation and that the government could not provide this?

P3: There is something here. This work that was done by the government, which was to give the generation to the private companies, was not in the public interest. These

companies that generate electricity and sell it to the government at a high price are from the political parties. If the government were to close these companies and import electricity from Iran, it would cost them less. This is definitely like that to go and connect lines from Iran for the whole Kurdistan Region is much cheaper than to get it from those private companies that generate electricity in Kurdistan and supply the government. These companies are those of the political parties. They have huge capital belonging to the political parties and generate electricity and then sell it to the government at a high price. The profit goes back into the political parties' pocket. The aim is the political parties' pocket and not improving the electricity. The electricity should have been improved for the last 25 years.

P4: There is something else also. Like the telecommunications [sector], in the past no one had a phone and the price of a phone went up to 50,000 [Iraqi] Dinar, so the service was very difficult to get. From now, if it [the service of supplying electricity by the private companies to the households] will put in the work, we might have 24 hours electricity, but how will it be? You will have to buy top up cards, like now you buy 10,000 Iraqi Dinar top up and this might last for 2 weeks and there are those that use it in a week. But when you have 24 hours electricity, you enter the room and you switch on the lights. If the service is given to the private companies, the electricity will become expensive. This will be an issue for the middle and lower middle classes.

P1: But it has another side.

P5: But there is this thing that the people are not consuming according to their needs. They use electricity excessively. They do not care. You enter someone's house you see all the lights are on. Lights in all the rooms are on. It was last week, on my way back home from the farmhouse, I saw all the other farmhouses, most of them were empty. All of them had turned all the lights on and they were not there. This means that all these lights were a waste of electricity. Why? The government does not care, so as the people and people are not used to using electricity according to their needs.

P4: This is because of its cheap price.

P2: The price is low.

P4: It is because of this. This electricity that we use in our country can be used by three countries, three countries could use this [amount].

In: Here there is….

P4: The distribution is not fair, people do not use it wisely because it is cheap, it is almost free.

P5: There is something else….

P3: Now let us say we have 24 hours electricity, but there may be 10 impacts. One of the impacts is to give it to the private sector and the private companies are after filling their own pockets. The private sector aims to get the biggest profit by lowest cost….

P6: To make a profit…

P3: They do not consider… now the government is obliged to bear all the costs, but the private companies do not care. They are after making the biggest profit with lowest cost. When a private company receives a power station from the government and run a part of it or a quarter of it. If there are 4,000 employees, the private company chooses 1,000 qualified employees and terminates the work of the other 3,000 employees, saying that they do not need them. The selected 1,000 employees also need to have the political parties' recommendation. The 3,000 employees will be sent home. Now the people who are employed in the public sector receive 1/3 of their salaries and when they are sent home they will receive 1,000,000 Iraqi Dinar. If you say it is insufficient, they will tell you that you do not work. So, that person has to accept this and the government in this case what will it do? The employees in the public sector are told that their work has been terminated and their salaries will be collected by the government and be given to those who are double paid, but in elections they vote for the parties making up the government.

P6: When the electricity service is privatised they have to consider the people's income, because this would be a burden on people from an economic perspective. No all individuals or households can bear the high cost... This means it is a bad thing.

In: To put the political intervention aside, so far, what appears clear is that the government subsidies of the electricity service supply hugely and assigns a huge public budget in order not to not have to increase the electricity price for the public. However, if this cost for the government increased much more, would you be ready to pay [a higher price]?
P3: No

P5: No, I am not ready

P6: Not ready

P7: Now, how much I criticise the government, I criticise the public as well. People now use an air conditioner in every room. Every child has his/her room with an air conditioner. Not all members of the family gather in one room and use one air conditioner in winter or summer... The air conditioners increase the cost, because people are separated and technology has impacted on this. Every room then needs its own electricity and lightning. Because the electricity is cheap, no one switches off the lights and air conditioners. People go out and they do not switch off the air conditioner.

In: Therefore, the use of electricity…

P7: It is not used wisely

P1: People's education [awareness] is not at the level to use the electricity according to their needs.

P7: Me myself, taught my child to switch off the light when she/he leaves the room. I do not need to use light in that room, but it is like that people do not learn. I know families when they go outside they do not switch off the air conditioner. Everything is switched on while they are not at home.

P8: So, the electricity and other things….

P4: The cheapest thing in this country is electricity. In other countries….

P2: There is something else. In the whole world and in Iraq, for example, whether you want it or not, all the international organisations now they want to invest, but one of the conditions put on countries by these organisations is that some sectors of economy, the government should give them to the private sector. Hence, they work on transferring those sectors from the public sector to the private sector, such as health and electricity.

In: Essential sectors…

P2: Now, the World Bank has a project with Iraq and the region has been negotiating since 2003 and afterwards, to give these sectors to the private sector. The issue for the people is not that it is to be given to the private sector, but in the contracts that the government has with the private sector. The regional government buys gasoil at 1,250 Iraqi Dinar for a litre, which is why the cost to the government is increasing. This is the issue. The issue is that the companies in other countries that supply electricity is according to an agreement which is transparent. You know how it is agreed and the lowest price of service purchase is accepted and with the best quality. Also, the electricity sector has other issues. The electricity is not only about its generation, for there is transmission sector and its distribution. There are many issues in the electricity distribution, all of which lead to the wasting of electricity. There are many systems that have not been used in our country yet. For example, a friend came back from Switzerland and said to me that he has a solar system at home. He said that he has a meter at home that measures how much he uses the electricity from the national grid and the government charges according to what he has used.

P4: And in summer it is reversed…

P2: He said I have my own meter for the solar power and I merge my own solar generated electricity with the national grid electricity. He said also that the country sells electricity to Paris and depending on how much is exported they get payment according to that.

P4: Our electricity is cheap….

P2: If the electricity sector is given to the private sector, we benefit from reliable electricity. You can use electricity for what you need.

P4: And people should use it wisely.

P2: But it has to be well-suited with the household income and individual income. If it is not well-suited, people cannot afford it.

P1: There is another point that we should recognise, which is we are in Kurdistan and Kurdistan is not like Britain or Europe...

P6: The system is different

P1: The system relies on the tax payment. Our country's underground is gold. We have all these oil and resources. The government takes all these for its own benefit and interest, what has been given to the people? Because we have all these resources, what has been received from us by the government? Britain is all based on tax so is Europe. So, what about us. What is it based on? Because there is a difference here. The government should provide more services that the government in Britain offers to the people. There, they serve the public based on taxes paid and here, it is based on the resources we have. How does the government use these resources? How has the [revenue from] oil been used? Where does it go?

In: Well, since it is the case and the strategic decision of the government that the private companies generate electricity for the next 15 years, what should have been done to make the projects successful? As you say it is not in the public interest, what should have been done to make the private sector participation better?

P4: The previous….

P6: Meaning…

In: Right now, electricity is generated by the private companies and the government purchases the electricity from them? What should have been done to make such kind of projects successful? You have told me many things, such as the provision of fuel by the government, the unreliability of 24-hour electricity, electricity usage by the public, what should be done to make these projects better?

P4: There is something here….

P8: It is beneficial to use wind turbines, especially in Sulaimaniyah where it is windy. They can set up over in Goizha. This will need no gasoil neither gas…

P2: To use other sources.

In: These are good things, but this [build gas-fired power plants] is the choice and source for us to generate electricity….

P4: If this has been done it is good. However, there are two things. First the price that is set is very expensive compared to our neighbouring countries…

In: Do you mean the price for purchasing the electricity?

P4: Yes, the price of purchasing of electricity that is later distributed to the public.

P2: The price that government pays.

P4: Now, if you compare it with the United Emirates and Iran and other neighbouring countries it is very expensive. It is even more expensive than in the European countries. This is one point. Secondly, there is something else, they [the private companies] do not allow other companies to enter the market and compete with them. This is the problem.

In: So, in your opinion, there should be competition that perhaps the case was….

P4: Such as Asiacell, if they let two other companies enter the Kurdistan region, telephone [mobile telecommunication] price was getting cheaper. The same for electricity, when competition is created another company will come and sign an agreement to sell the electricity cheaper than another company. They have given it to companies that belong to them, they would not agree to a price that they will not accept.

P2: Meaning the monopolising of the electricity sector by a few persons….

P4: Otherwise, it is a very good idea that they involved the private sector. It is better. We have Tasluja cement factory, [name] was working there and he was saying that when the government was operating the factory the production was low and the expenses were high. Later, this factory became the best one, we benefit from it, and the returns are good, why? Because it is the private sector. The private sector looks after things and has big responsibilities. It is more about the pocket, but if it is governmental there is a difference. When it is changed to the private sector, it is to the benefit of the both sectors but it is conditional for them allow other companies to enter the market and consider the price that is well-suited with the citizens pocket.

P2: There is no knowledgeability. The people who approved the contracts they were unfamiliar or intentionally wanted these contracts to take the public budget and let the private companies benefit. For example, the price of gasoil is 1,250 Dinar, but you can buy it for 475 Dinar on the market. There is this big difference, why? Because they have not considered time. Maybe at that time it was 1,250 Dinar, but they had to consider time that may be this price will get lower and therefore, this huge public budget will not be used by the government. Approximately 2 million litres of gasoil are used daily to generate electricity. See the difference. It would be how much, if you use 2 million litres at 500 Dinar? A huge amount of money on the part of government is wasted as a result of a contract that they have not considered the future. There is this mistake that has led to wasting the government's money.

P3: The government can reduce the cost of electricity service as it now itself says that the cost of the electricity service is high. This is not what it says. So, the government can reduce it. For example, Chamchamal is rich in natural gas resources. There are natural gas resources in Kurdistan, especially in Chamchamal District and therefore, the government could use natural gas in all the stations, but it does not, why? A number of political parties' companies have contracts with the government and sell gasoil to the government to supply the stations. If they switched to natural gas, the companies will no longer sell gasoil. A litre of gasoil is bought for 1,250 Dinar and it is 475 Dinar on the market, why would the government buy it on the market at 475 Dinar? There are more than 70 oil refinery plants. Why doesn't the government extract it itself and supply it to the stations? The government goes to the companies that they have allowed to take on projects from political parties, and then buys gasoil from them at a higher price. So, why does the government not work on

extracting natural gas? The cost will be only that of the extraction. Companies can do this, but the government wants these private companies to make profits and the profits go into the political parties' pockets. The government does not want to reduce the cost of electricity provision. Secondly, according to the former minister who resigned, 28% of consumers do not pay their electricity consumption bills…
In: Paying electricity….

P3: 72% of the public do not pay their electricity bills. Those who do not pay are the political parties. No one else can avoid payment. For example, because we all are public sector employees, if, let us say, we receive a bill and we will not pay it, they accumulate, and in the end, the government obliges us to pay. However, the parties have hundreds of projects and they do not pay for electricity. There are hundreds of factories that do not pay either. The wastage of electricity is coming from these and 90% of electricity is consumed by these political parties and for free. In fact, if they have any members in their neighbourhood they will allow him to have free electricity also. I do not know if you know this, but at one time we had only six amperes of electricity. When we had 6 amperes. In case of any issues you had to call the Electricity Directory to come to fix it and pay them. However, if you were a man belonging to any political party in any district, you could have a full supply and use whatever you want with no problem. The ordinary persons….

P4: No, we in our country…

P3: Then this country will never become an institutionalised country like in Europe and America. These countries work on this. Institutionalisation like in these countries could never happen even after 100 years…

P4: The private sector involvement is good. In our opinion, we would not have problem but they should consider the people's pocket. The government has not paid our salaries but then increases the electricity price, so how would we pay? Besides this, does the government not think about what percentage of the people in this country are employees in the public sector?

P2: Many…

P3: 38% or 39%, something like that

P4: There is another group which are the peshmargas. Another group, on low income. They have to consider their pockets but they do not. Their problem is not the people's pockets. The only thing that is important to them is to give the business to the private sector in order to make them respond to the public's complaints and achieve 24 hours electricity. But then they say to the people do not use the electricity for 24 hours. For example, I am wealthy and I want to turn on three air conditioners or there is someone else who is not rich or does not want to turn on any. Therefore, they cannot push the people how to use it. There is a big thing that they have not considered. In Iran, for example, they have considered gas for heating, for which every household has a gas bottle to use for heating. There is this point as well that the government should have considered it. If I have gas why do I use an air conditioner or heater? Or for hot water….

P3: The alternative, alternative power

P4: There are alternatives but they do not have ideas or they have, but their concern is not what people do or do not...

P8: They are not concerned about the public's need really…

P4: No, they are not concerned about the public's need

P2: The government does not have strategic plans. For example, in the last few years the UN and UNDP came, they did a group of projects. Because the government had no strategic plans or did not have a vision, it did not consider the expansion that we can witness now. If it has a master plan or considers the [region's] expansion, for example, how many houses or factories will be built, or estimates all these. The government could spend the public budget for this expansion, according to a strategic plan. But there is no strategic plan and vision in this country, which is a big issue. To have this [improved electricity service], you should have a strategic plan and by considering the number of buildings, factories, the use of electricity, and seasons. This is to supply more electricity to all the places and individuals according to your strategic plan. Then, these people to get benefit from this. However, because there is not that plan, you have to depend on local generators to

compensate for the [unreliable] electricity. Therefore, there should be another alternative source to come into use than the current ones, which are not alternatives for the people to get benefit from. Thus, what is clear is not having a strategic plan. For example, the government should be able to inform us how much I can use annually and then, I can use the electricity according to my need. Also, the price of electricity in this country is cheap. This is also another issue. Were the price to be expensive, this would encourage consumers to use the electricity wisely. These all have an impact because of cheap electricity. In fact, it is in my interest for it to be cheap. For using electricity, I might have my bill at 30,000 Dinar and will become 60,000 Dinar, if the price goes up, but I think it is better to pay 60,000 Dinar and not to get electricity from the local generators. It is better to pay the government and get 24-hour electricity.

[…….]

P2: As our right, everyone has a right to use the electricity. For example, I want to use electricity as I want and turn on 100 lights in my house, it is normal and it is our right. But you have to be organised by a number of decisions that involve all of us.

In: Now, you have mentioned a very critical thing, which is involvement in decisions, how can you participate in these decisions?

P2: You mean?

In: When it comes to restructuring these decisions or in making the strategic decisions about the electricity generation, how [to involve you]? You just said that you need electricity, you want to use the electricity according to your needs, but you are concerned about the electricity price, right?

P2: Right

In: Then, how would you express what you want to choose or how you want to have electricity, how would the government should listen to you? How could they involve you in the decisions?

P2: There is some stuff that is the decision of the elites. I believe not every citizen can participate. There is this.

In: What are the reasons not allowing your involvement?

P2: In general, there is something which is local meetings at the level of the neighbourhoods. The people in these are representatives of the public. So, through these meetings, the needs of the public can be known and the public can be listened to. Through these, they can know what the public prefer generally and they can collect all the data about this. For example, [at my work] we conducted a survey in the past. The survey was about distributing 100 amperes for each household in all the cities, towns and districts. We found out that people were unsatisfied. Approximately 55% of the public were unsatisfied and 45% were satisfied with provision of only 100 amperes to each household. Through surveys you can collect data or through the local meetings where many can be gathered. You can do these things.

In: Except for the survey, do you have any other way?

P1: I have several points. First, I would say you should start with the primary schools or from level 1 to level 7 or 9 and teach children that the electricity should be used as…..

P4: Educate them…

P1: Use the electricity according to the need. So, first, practising giving education to the children. Second, each household to be provided with a special meter and calculate the usage precisely. For example, there is a household which uses 2,000 units, while there is another one that uses 3,000 units. The one which uses 3,000 units should be considered differently and charged more than the one that uses 2,000 units. Through this you can reduce the excessive use of the electricity. Another point is the role of the media. I think the media can do the work through educating the public and this generation to reduce the excessive use of electricity. I believe these three points can help.

In: You have said good points, but let me return to the point: for you to participate in the strategic decision making and as a citizen who pays the government for electricity, how can you participate in strategic decisions?

P7: There must be representatives in this case…

In: You have mentioned surveys, is there any other opinions? Other ways to participate?

P5: When you conduct a survey, you should have representatives. Every group of people has different opinions and views and has chosen different things. Through collecting views and opinions you would know what is good or bad, which [decision] is in the public interest and even the government's interest. In the interest of both sides - the public and the government - it should be in the interest of all and not one side getting the benefit and the other one not. Also, people should be educated and learn how to use the electricity wisely. I should start from myself and my house. My child when he leaves a room, I should tell him to switch off the light, because he does not need it.

P5: At night when you are not at home switch off the lights in your backyard and rooms. You should start with the people and for the government not to do things without plans and programmes.

[….]

In: Before involving in the discussions about educating the public and how to use the electricity wisely, my question was how can the needs you have to be heard by the government? You have mentioned surveys to collect your opinions and what you need, but how can your views be taken into account in the strategic decisions and thus, consider your interest in these decisions? My question is: How should you be approached by the government in order to listen to you? Apart from a survey, is there any…

P1: The government to know about my….

In: Yes

1: Honestly, the government does not listen to us in terms of what we say or do not say. They do not consider us, what is in their interest they do this. For example, a period ago, they wanted to provide only 20 amperes to the households and they did it without considering us. And now if I say anything they would not consider and listen to me. However, someone [decision maker] will say let us do that and that is all. It should be in their interest. Hence, they would not listen to me. If it does listen, let them do a survey and we will see what the people are going to say?

In: Well, if a survey were conducted, would the people participate?

P1: How come they would not? They'd participate.

P2: Of course, they would.

P3: People will participate.

P5: Why would they not participate?

In: You are sure?

P3: People will participate

P7: The households... You can engage the households…

P3: To take the opinions of people, let them do the survey…. In this country, if the survey is carried out or not there is no benefit, because the government pursues the private interest – the political parties interest is pursued and not the public interest. When there is the pursuit of the [private] political interest, the government will not want to listen to our views in surveys.

P7: The public has no trust…

[….]

In: In your opinion, when you are involved can you influence the decisions taken?

P7: You can, how come you cannot?

P7: The government can listen to you.

P2: There are two types of plans. One is the plan that is made by the elites from the authority and people have to apply them. The other one is the plan that is from down to top, meaning that the people made them for the top and the top will re-programme it. We do not have these in our country. There is nothing [mechanism] also that allows you to participate. The only thing we have is through our parliament members. And all these members are influenced by the private companies and political parties. They cannot influence the decisions.

[……]

In: Well, thank you.

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